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The Coach-Athlete Relationship as a Predictor of Self-Regulation, Academic Self-Efficacy, and Aggression Among Student-Athletes with Exposure to Community Violence

Keoshia Worthy
Keoshia.Worthy@shu.edu
THE COACH–ATHLETE RELATIONSHIP AS A PREDICTOR OF SELF-REGULATION, ACADEMIC SELF-EFFICACY, AND AGGRESSION AMONG ATHLETES WITH EXPOSURE TO COMMUNITY VIOLENCE

BY

Keoshia Worthy

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APPROVAL FOR SUCCESSFUL DEFENSE

Keohia Worthy, has successfully defended and made the required modifications to the text of the doctoral dissertation for the Ph.D. during this Spring Semester 2017.

DISSERTATION COMMITTEE
(please sign and date beside your name)

Mentor:  Dr. Pamela Foley  
\[Signature\]  7/25/17

Committee Member:  Dr. John Smith  
\[Signature\]  5/3/17

Committee Member:  Dr. Daniel Cruz  
\[Signature\]  7/26/17

Committee Member:  Dr. Thomas Massarelli  
\[Signature\]  5/3/17

The mentor and any other committee members who wish to review revisions will sign and date this document only when revisions have been completed. Please return this form to the Office of Graduate Studies, where it will be placed in the candidate’s file and submit a copy with your final dissertation to be bound as page number two.
ABSTRACT

Although several studies have investigated the effects of the coach–athlete (C–A) relationship, minimal attention has been given to the effects of the relationship on the behavior of college athletes outside of sport. The purpose of this exploratory study was to investigate the coach–athlete relationship and its connection to the student–athlete’s behavior outside of sport and academic self-efficacy for athletes with exposure to community violence. This information can contribute to the discussion on the attachment relationship between coach and athlete, as well as add an in-depth understanding of the value of the relationship beyond its effects in sport.

A simultaneous multiple regression was used to evaluate the relationship between the quality of the C–A relationship, self-regulation, academic self-efficacy, and reactive and proactive aggression. The participants included African American male student athletes competing in the National Collegiate Athletic Association (NCAA), participating in basketball at a four-year university or college, and who self-identified as living in a high-crime environment. Results from the study indicate that when athletes report a high-quality relationship with their coach, they showed a higher level of academic self-efficacy and self-regulation and a low level of reactive and proactive aggression. The findings from this study suggest that the C–A relationship is another relationship outside of the family-of-origin that can contribute to the athlete’s development. The findings from this study promote the field of psychology by identifying another important variable that can help reduce negative outcomes for young Black men: the coach–athlete relationship.

Keywords: Athletes, coach–athlete relationship, community violence, African American males
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CHAPTER I
INTRODUCTION

There are more than 460,000 college athletes in the United States, and only a fraction of them compete professionally (National Collegiate Athletic Association [NCAA], n.d.). While few will go on to professional athletic careers, the literature suggests that the identities of student–athletes from low-income environments may be most related to their athletic ability, rather than their identity as students (Beamon & Bell, 2006; Lapchick, 1996). In particular, Beamon and Bell have suggested that the overrepresentation of African American males in sports has led to the detriment of academic and social growth among this racial group. Additionally, African American males tend to have higher expectations for a professional sports career than all other student–athletes (Lapchick, 1996) and often see their sport as the most viable means to economic success (Beamon & Bell, 2006). With regard to economic and social conditions, statistics paint a picture of poverty and dire living conditions. For instance, the median income of African American households is just $34,000, almost $24,000 less than the median income of White households (DeNavas-Walt & Proctor, 2014). Also, more than 51.4% of Black families with children are headed by a single mother, and nearly 47% of families headed by a Black single mother are in poverty (U.S. Census Bureau, 2013).

In many low-income neighborhoods, children and adolescents may learn that the more powerful and respected individuals are either members of gangs or highly recruited high-school athletes. Beyond the relative absence of role models who have succeeded in following more conventional career paths, comparatively, individuals who grow up in high-crime environments and are exposed to community violence may have difficulties in specific areas, which can lead to deficits in important life skills. These areas include poorer emotional regulation (Hardaway,
Larkby, & Cornelius, 2014), proximal and long-term academic challenges (Borofsky, Kellerman, Baucom, Oliver, & Margolin, 2013; Mathews, Dempsey, & Overstreet, 2009; Milam, Furr-Holden, & Leaf, 2010), and a high level of aggression (Bailey & Coore-Desai, 2012). All of these challenges can hinder successful transition into the workforce, even if individuals do graduate from college.

Furthermore, low-income and African American communities have higher percentages of adult males behind bars (McLaughlin, 2011). This means that there are fewer fathers and grandfathers for young men to look up to. Without a stable father figure, young men are more likely to follow the paths of their fathers (McLaughlin, 2011). Despite these challenges, the presence of a supportive individual in the student’s life has been shown to increase self-reported behavior control, reduce aggressive behaviors, and increase academic self-efficacy and academic performance (Cavell, DuBois, Karcher, Keller, & Rhodes, 2009). Particularly in sports, research has shown that positive relationships between athletes and coaches have led to an increase in prosocial behaviors (Hodge & Lonsdale, 2011), as well as motivation (Amorose & Horn, 2000), self-efficacy (Kenow & Williams, 1999), and social cohesion (Jowett & Chaundy, 2004). Relatedly, college basketball coaches are now speaking out publicly and explaining how important their role is, especially for athletes without father figures, like most Black male student–athletes. In a 2015 press conference, Duke University’s head men’s basketball coach, Mike Krzyzewski described his bond with player Quinn Cook by stating,

I love Quinn, he’s lovable. Quinn lost his father when he was 14, so an older male relationship was voided and I think we as coaches understand when we recruit these type of players there is going to be a different type of relationship. (Lombardi, 2015, para. 3)
Coach Krzyewski goes on to say how he looks forward to locking hands with Quinn during huddles and described it as a “beautiful thing” (Lombardi, 2015, para. 3). Bloom, Durant-Bush, Schinke, and Salmela (1998) explained that coaches’ relationships with athletes are reciprocal, trusting, genuine, and helping in nature and go beyond merely teaching and instructing skills, techniques, and tactics. The element of care on the part of the coach has been found to be essential in the relationship (Jowett & Cockerill, 2003). Because of the potential reparative influence of the coach–athlete relationship for counteracting the effects of previous negative factors on African American athletes, a better understanding of the critical elements and impact of those bonds is warranted.

**Background of the Problem**

The United States is one of the most violent Western industrialized countries. This is reflected in high rates of lifetime violence exposure in today’s young adults, ranging from 76% to 82% for victimization and 93% to 96% for witnessing (Scarpa, 2003). Compared to women, men report greater exposure to violence (Scarpa, 2003). Men report significantly higher rates of either experiencing or witnessing someone being chased, threatened, hit by a nonfamily member, beaten/mugged, stabbed, or shot (Scarpa, 2003). Additionally, those who witnessed violence in the home or had been abused as a child have an increased chance of displaying violence toward nonfamily members, as well as their children and intimate partners (Murrell, Christoff, & Henning, 2007). Furthermore, according to Scarpa (2003), “Negative outcomes of chronic community violence exposure in young adults includes heightened levels of depressed mood, posttraumatic stress disorder symptoms, aggressive and criminal behavior, and interpersonal problems (p. 212).”
Empirical studies investigating African American students from high-crime environments, found that men, especially, have higher attrition rates than most other groups of students in higher education (Mason, 1998), as well as decreased study habits and increased absenteeism in classes. In general, the lack of engagement in school has been consistently associated with the achievement gap in African American males (Davis, 2003). External and internal stressors including prior education (elementary through high school), drugs and alcohol use, criminal activity, family, and economics all have substantial adverse effects on the student and are a part of the stressors that he brings with him to college (Mason, 1998). Additional anecdotal reports suggest that these individuals also encounter the stress of having to live up to the expectation of being “the next greatest Black athlete.” Other research states that African Americans, especially men, are also struggling with perceived prejudice and discrimination that contributes to how they perceive themselves (Franklin & Boyd-Franklin, 2000). According to Franklin and Boyd-Franklin, “Their subjective sense of psychological invisibility takes the form of a struggle with inner feelings and beliefs that personal talents, abilities, and character are not acknowledged or valued by others, nor by the larger society, because of racial prejudice” (p. 33). Furthermore, Carter (2007) suggests that the frequency of experienced racism, either subtle or overt, can increase stress in individuals and lead to race-based trauma. These stressors can affect their ability to be successful in the classroom (e.g., experience stereotype threat, the threat of possibly being judged and treated stereotypically, or of possibly self-fulfilling such a stereotype; Von Robertson & Chaney, 2015) and may bring about the use of coping behaviors (e.g., aggression) that were once needed in their previous community (e.g., Aquino, Galperin, & Bennett, 2004).
Similar to my own personal observations, Bandura, Ross, and Ross (1961) found that children who observe aggressive acts tend to model them, even when placed in a different environment. Though the above findings begin to explain the transfer of aggression from one environment to the next, research is still lacking in how aggression may persist when students leave their communities of origin. The majority of research that addressed this transference of aggression to different environments is limited to that of criminal offenders and literature on child abuse, where children who are abused become aggressors (e.g., Jennings, Richards, Tomsich, Gover, & Powers, 2013; Pritkin, 2009; Spelman, 2008).

Specifically, these articles refer to individuals who continue to engage in aggressive acts (while in prison) in order to protect themselves (Pritkin, 2009), using the same coping mechanisms they once used in their community. For individuals who come from environments where crime occurs at a higher rate (i.e., low-income minorities) it is likely that the aggressive behaviors that were once used in their environment will follow them, similar to their internal and external stressors, as well as learned ideas about hypermasculinity (e.g., Cunningham, Swanson, Hayes, 2013). Still, there is no research that examines an environment where there is no longer a need for such behavior, specifically regarding student–athletes. For these student athletes, the relationship with the coach may be the key to helping them develop life skills that will lead to success both in school and in their careers, whether in or out of sport.

Although exposure to violence is not limited to any particular socioeconomic group, it occurs at a higher rate in neighborhoods consisting of low-income minorities (i.e., African Americans and Latinos). In fact, African American and Latino youth both report more exposure to community violence than do their White counterparts (McLaughlin, 2011). Exposure to any form of violence (direct or indirect) has been shown to increase aggression in individuals.
Relatedly, lower socioeconomic class youth commit four times more violent crimes than middle-class youth (McLaughlin, 2011). Further, exposure to violence lowers their chances of excelling academically (Milam et al., 2010). This is particularly true for students who come from an environment with a poor academic system, as typically do low-income minorities (Wyatt & Mattern, 2011). Given the above findings, it is suspected that part of the problem stems from a systems level, in which schools lower their academic standards rather than increasing supports.

Low SES students enter college less prepared, due to their high schools’ inability to offer courses that require an intense curriculum (Wyatt & Mattern, 2011). They are also more likely to need remedial education than students that come from high SES families (Wirt et al., 2004), which decreases their chances of graduating when compared to students who did not require remedial courses (Wyatt & Mattern, 2011). More specific to student–athletes, African American male basketball players graduate at a significantly lower rate than their White counterparts (67% to 91%, respectively; NCAA, 2014). It is argued that this is because African American males have higher expectations for a professional athletic career (Lapchick, 1996) and are therefore less engaged academically than all other student–athletes, which results in low achievement. Lower levels of achievement in African American males appear to have the most significant consequences for future development in social identity, cognitive ability, emotional capacity, and social competence (Heath & MacKinnon, 1988). However, as stated above, studies investigating children from disadvantaged communities show that the presence of a positive role model improves relationships, self-esteem, academic performance, and reduces risky behaviors (e.g., Dass-Brailsford, 2005; Harvey & Delfabbro 2004; Rhodes & Dubois, 2006).

The coach and athlete have a unique relationship in which the coach’s main role is to increase athletic performance while simultaneously monitoring academic success, but unlike
coaches in professional sports, the college coach may serve more of a developmental role. Even though some athletes are born with a gift of athleticism, and the coach plays a key role in facilitating optimal performance, the college coach has been shown to facilitate and/or strengthen leadership, sportsmanship and reduce antisocial behavior in sport (Hodge & Lonsdale, 2011). On the contrary, unsupportive coaching has been shown to increase attrition rates in sports (Barnett, Smoll, & Smith, 1992) and promote aggressive acts if aggressive acts are overlooked (or encouraged) by coaches (Kimble, Russo, Bergman, & Galindo, 2010). According to Ciairano et al. (2007), positive coaching roles led to higher athlete self-efficacy, which, in turn, reduced non-sport physical aggression toward peers. As the complex role of the coach is essential in all athletes’ lives, it may be even more critical for athletes who live in high-crime environments where the likelihood of involvement in aggression is higher and college graduation rates are lower.

**Statement of the Problem**

Although several studies have investigated the effects of the coach–athlete (C–A) relationship (Jowett & Chaundy, 2004; Jowett & Cockerill, 2003), minimal attention has been given to the effects of the relationship on the behavior of college athletes outside of sport. Results from several studies suggest that coaches who maintain good relationships with their athletes reduce antisocial behavior and promote prosocial behaviors (Hodge & Lonsdale, 2011; Kavussanu & Boardley, 2009; Rutten et al., 2007). However, these findings only explain behavior in sport. Despite statistics reporting that eight percent of scholarship football players enter college with criminal records (Taylor, 2011), there remains a paucity of research investigating college athletes from high-crime environments. In particular, college students who are from high-crime communities are at an increased risk for involvement in deviant activity,
low academic performance, and higher attrition rates. Given that only 1.2% of male basketball players in the United States will become a professional (NCAA, 2014), successful performance in academics is a much more important path to employment and ultimately financial stability. Though there is a large amount of research suggesting that academic efficacy is a good predictor of academic performance (Bandura, 1997; Hsieh, Sullivan, & Guerra, 2007; Lane & Lane, 2001; Linnenbrink & Pintrich, 2002) there is none to date that focuses on this special population. Therefore, research involving athletes with exposure to community violence, addressing behavior control and academic self-efficacy are warranted because they both are keys to success in college and in the workplace (ENGAGE, 2011).

**Purpose**

The purpose of this exploratory study was to investigate the coach–athlete relationship and its connection to the student athlete’s capacity of self-regulation outside of sport, academic self-efficacy, and aggression in sport. This study focused on male college basketball players who are from high-crime environments because they are at greater risk than are students from more stable communities. In addition, there is a paucity of literature relative to this population and their level of behavioral control and academic self-efficacy. Given the large amount of literature on aggression and academic performance in African American males, the proposed study examined the correlation between the quality of the C–A relationship and the athlete’s behavior and academic self-efficacy outside of sport.

There are significant clinical and research implications, which may come from understanding the effects of this unique relationship. Clinically, these results will bring awareness to an attachment relationship outside of the family of origin, which may provide needed insight to counselors working with student–athletes. For the field of sport psychology,
this research will provide a more in-depth understanding of the value of the relationship between coach and athlete, beyond its effects in sport. Together, mental health professionals who serve this population can be more informed in working with this distinctive group, in addition to using these findings as a platform for future research.

**Limitations of Existing Studies**

The most significant limitation in the current research is the nonexistence of any study addressing the C–A relationship involving athletes from high-crime environments. While there is a significant amount of research on young children who are exposed to community violence and its effects, there is a scarcity of literature concerning late adolescent-aged student–athletes and their outcomes.

Given the high levels of crime in low-income communities, research addressing first-generation college students often describes students who are exposed to community violence. Specifically, identifying ethnic minority students who come from low-socioeconomic backgrounds (Khanh, 2002; Majer, 2009) and enter college with low academic preparedness (Hahs-Vaughn, 2004), low grades (Chen, 2005), and less academic persistence (Lohfink & Paulsen, 2005) who live in urban environments (e.g., New York, Los Angeles, Arizona, Illinois, Georgia, Florida). Studies on first-generation college students and exposure to community violence extends literature by highlighting the importance of a positive, caring figure in the individual’s life, but they do not address athletes and the relationship between C–A and its impact. The goal of the present study was to understand the relationships among the variables (i.e., self-regulation out of sport, academic self-efficacy, and aggression in sport), while still considering other factors that may contribute to these outcomes (e.g., family support, counseling services, self-motivation).
Conceptual and Operational Definition of Terms

The following terms have been defined for this study. These terms will be referred to throughout the dissertation.

**Exposure to Community Violence**

Exposure to community violence is defined as “the exposure to acts of interpersonal violence committed by individuals who are not intimately related to the victim” (National Center for Children Exposed to Violence, 2010, para. 2). These acts can include sexual assault, burglary, use of weapons, muggings, the sounds of bullet shots, as well as the presence of teen gangs, drugs, and racial divisions (National Center for Children Exposed to Violence, 2010). For the purpose of this study exposure to community violence is defined as scores on the modified version of the Survey of Exposure to Community Violence (SECV; Lofving-Gupta, Lindblad, Stickley, Schwab-Stone, & Runchkin, 2015).

**Quality of the Coach–Athlete (C–A) Relationship**

The quality of relationship is determined by three interpersonal constructs: closeness, complementarity, and commitment. Closeness is defined as an affective or emotional interdependence that contains such relational properties as liking, trusting, and respecting one another (Philippe & Seiler, 2006). Complementarity is operationalized as the interaction type that promotes a sense of teamwork, mutual aid, and collaboration (Jowett & Ntoumanis, 2004). Estroff and Nowicki (1992) associated high rates of complementarity with high rates of performance in experimental situations. In other words, complementarity reflects a situation where athletes and coaches work together in a friendly, responsive, willing, and almost uncomplicated environment toward improving performance. Commitment (cognitions) broadly
refers to the athlete’s intention to maintain an athletic relationship and implies the athletic dyad’s cognitive orientations for the future (Jowett & Chaundy, 2004). For the purpose of this study, the level of quality of relationship and the three interpersonal constructs are defined as the scores on the Coach–Athlete Relationship Questionnaire (CART-Q; Jowett, 2005; Jowett & Ntoumanis, 2004).

**Proactive Aggression**

Proactive aggression is defined as aggression used as an instrument to obtain a goal without any previous provocation (Chaux, Arboleda, & Rincon, 2012). For the purpose of this study proactive aggression is defined as the scores on the proactive scale within The Reactive–Proactive Aggression Questionnaire (RPQ; Raine et al., 2006).

**Reactive Aggression**

Reactive aggression is when aggression is used as a reaction against a real or perceived provocation (Chaux et al., 2012). For the purpose of this study reactive aggression is defined as the scores on the reactive scale within The Reactive–Proactive Aggression Questionnaire (RPQ; Raine et al., 2006).

**Self-Regulation Outside of Sport**

Self-regulation refers to the effortful control of thoughts, emotions, and behaviors in the service of a goal; it includes such capacities as planning and the ability to delay gratification but is separate from and only modestly related to behavioral impulsivity (Flouri, Midouhas, & Joshi, 2014). For the purpose of this study, self-regulation was measured by the athlete’s off-the-court behaviors; self-regulation outside of sport is defined as the scores on the short Self-Regulation Questionnaire (SSRQ; Carey, Neal, & Collins, 2004).
Academic Self-Efficacy

Self-efficacy is defined as a self-evaluation of one’s competence to successfully execute a course of action necessary to reach desired outcomes (Bandura, 1997). Academic self-efficacy refers to students’ confidence in their ability to carry out such academic tasks as preparing for exams and writing term papers. For the purpose of this study academic self-efficacy is defined as the scores on the Academic Self-Efficacy Subscale (Zajacova, Lynch, & Espenshade, 2005).

Research Questions

There were four research questions posed in the present study:

1. Would the athlete’s capacity for self-regulation outside of sport be associated with the quality of relationship with his coach?

   1a. Would the athlete’s capacity for self-regulation outside of sport be associated with the athlete’s level of closeness with his coach?

   1b. Would the athlete’s capacity for self-regulation outside of sport be associated with the athlete’s level of complementarity with his coach?

   1c. Would the athlete’s capacity for self-regulation outside of sport be associated with the athlete’s level of commitment with his coach?

2. Would the athlete’s level of academic self-efficacy be associated with the quality of relationship with his coach?

   2a. Would the athlete’s level of closeness with his coach be associated with the athlete’s level of academic self-efficacy?

   2b. Would the athlete’s level of complementarity with his coach be associated with the athlete’s level of academic self-efficacy?
2c. Would the athlete’s level of commitment with his coach be associated with the athlete’s level of academic self-efficacy?

3. Would the level of proactive aggression out of sport be associated with the quality of relationship with his coach?

3a. Would the level of proactive aggression outside of sport be associated with the athlete’s level of closeness with his coach?

3b. Would the athlete’s level of proactive aggression outside of sport be associated with the athlete’s level of complementarity with his coach?

3c. Would the athlete’s level of proactive aggression outside of sport be associated with the athlete’s level of commitment with his coach?

4. Would the level of reactive aggression outside of sport be associated with the quality of relationship with his coach?

4a. Would the athlete’s level of reactive aggression outside of sport be associated with the athlete’s level of closeness with his coach?

4b. Would the athlete’s level of reactive aggression outside of sport be associated with the athlete’s level of complementarity with his coach?

4c. Would the athlete’s level of reactive aggression outside of sport be associated with the athlete’s level of commitment with his coach?

**Statement of the Hypotheses**

The following four hypotheses were proposed:

1. Athletes who reported a positive quality relationship with their coach would report a higher capacity for self-regulation outside of sport than would athletes who reported a low quality of C–A relationships.
1a. Athletes who reported a higher level of closeness with their coach would report a higher capacity of self-regulation outside of sport than would athletes who reported a low level of closeness.

1b. Athletes who reported a higher level of complementarity with their coach would report a higher capacity of self-regulation outside of sport than would athletes who reported a low level of complementarity.

1c. Athletes who reported a higher level of commitment with their coach would report a higher level of self-regulation outside of sport than would athletes who reported a low level of commitment.

2. Athletes who reported a positive quality relationship with their coach would report a high level of academic self-efficacy when compared to athletes with low-quality relationships.

2a. Athletes who reported a higher level of closeness with their coach would report a high level of academic self-efficacy than would athletes who reported a low level of closeness.

2b. Athletes who reported a higher level of complementarity with their coach would report a high level of academic self-efficacy than would athletes who reported a low level of complementarity.

2c. Athletes who reported a higher level of commitment with their coach would report a high level of academic self-efficacy than would athletes who reported a low level of commitment.

3. Athletes who reported a positive quality relationship with their coach would report a lower level of proactive aggression outside of sport than would athletes who reported a low quality of C–A relationships.
3a. Athletes who reported a higher level of closeness with their coach would report a lower level of proactive aggression outside of sport than would athletes who reported a low level of closeness.

3b. Athletes who reported a higher level of complementarity with their coach would report a lower level of proactive aggression outside of sport than would athletes who reported a low level of complementarity.

3c. Athletes who reported a higher level of commitment with their coach would report a lower level of proactive aggression outside of sport than will athletes who reported a low level of commitment.

4. Athletes who reported a positive quality relationship with their coach would report a lower level of reactive aggression outside of sport than would athletes who reported a low quality of C–A relationships.

4a. Athletes who reported a higher level of closeness with their coach would report a lower level of reactive aggression outside of sport than would athletes who reported a low level of closeness.

4b. Athletes who reported a higher level of complementarity with their coach would report a lower level of reactive aggression outside of sport than would athletes who reported a low level of complementarity.

4c. Athletes who reported a higher level of commitment with their coach would report a lower level of reactive aggression outside of sport than would athletes who reported a low level of commitment.
CHAPTER II

REVIEW OF THE LITERATURE

Individuals who are exposed to community violence are at an increased risk for low self-regulation, high aggression, and low academic performance. Even though there is a large amount of research on this particular topic, there is no research to date that focuses on student–athletes from high-crime communities. Equally, there is a paucity of research that focuses on the coach and athlete’s relationship among African American male student–athletes who live in violent neighborhoods. This section of the proposal focuses on the effects violent communities can have on individuals (i.e., academics, self-regulation, and aggression), as well as the importance of having a positive, caring adult in an individual’s life. The coach’s role in the athlete’s life is a highly involved one, in which athletes spend much of their time during their 4 to 5 years in college with the coach. The goal of the present study is to increase understanding of this relationship and its relationship with the athlete’s functioning outside of the sporting environment. This chapter will review the existing literature in the following areas: (a) implications of exposure to community violence, (b) aggression, (c) self-regulation, (d) academic self-efficacy, (e) mentoring in the community, and (f) the coach–athlete relationship.

Implications of Exposure to Community Violence

Childhood exposure to violence continues to be a major public health problem that has implications relating to crime and physical and mental health problems during adolescence and later adulthood (Eitle & Turner 2002; Gorman-Smith & Tolan, 1998; Jenkins & Bell, 1994; Scheier, Botvin, & Miller, 1999). Findings indicate that exposure to violence, via direct victimization or witnessing, is significantly associated with higher levels of aggression and the
use of violence (Bailey & Coore-Desai, 2012). Other work on the relationship between adolescent violence and its outcomes has posited that aggression by young people who are exposed to violence can be viewed as an adaptive strategy that one uses to function (as a coping skill) in dangerous and unpredictable environments (Latzman & Swisher, 2005; Wilkinson & Carr, 2008). In this framework, adolescent violence is viewed as being protective within violent contexts, a way to survive in difficult environments, albeit with maladaptive consequences (Garbarino, Dubrow, Kostelny, & Pardo, 1992).

Wilkinson and Carr (2008) examined youth’s responses to high levels of exposure to community violence. Participants included 416 active violent offenders (aged 16–24) from two low-income New York City neighborhoods. Participants were 48.5% African American, 39.3% Puerto Rican, and 12.2% Caribbean, Latin American, or mixed ethnicity. Specifically, researchers analyzed participants’ lifetime history of exposure to community violence (personal and vicarious victimization). Findings were consistent with prior research in that exposure to community violence leads to higher levels of aggressive behavior (Colley-Quille, Turner, & Beidel, 1995; Gorman-Smith & Tolan, 1998), elevated levels of posttraumatic stress disorder (PTSD; Fitzpatrick & Boldizar, 1993), hopelessness (Bolland, Lian, & Formichella, 2005), and substance abuse (Kilpatrick et al., 2000). Most importantly, results supported the social psychological approach that explains that violence is adaptive, and young people can and do adapt to high levels of community violence (Wilkinson & Carr, 2008). Further, Ng-Mak, Salzinger, Feldman, & Stueve (2004) has argued that youth adapt to violence by becoming desensitized to it, which, in turn, increases the likelihood that they will engage in violent behavior themselves.
Although there is a significant amount of research related to community violence, there is limited research related to its effects on academic performance. In one of the few related studies, Milam and colleagues (2010) examined the effect of the school and neighborhood climate on academic achievement among a population of third- to fifth-grade students in an urban public school system. Given that research utilizing objective measures of neighborhood violence are lacking, Milam et al. (2010) developed the Neighborhood Inventory Environmental Typology (NIfETy) method. This method was used to objectively measure neighborhood level exposure to violence, alcohol, and other drugs and its relationship to youth outcomes. In combination with the NIfETy, the study used data obtained from a child self-report, data related to student’s sense of safety, and standardized test scores to better understand the relationship between perceived community and school safety, neighborhood violence, and school performance (Milam et al., 2010).

Findings indicated that students’ report of sense of safety within the school was associated with academic achievement on the reading and math Maryland School Assessment (MSA) for each grade (Milam et al., 2010). Students who reported that there were a lot of broken windows, desks, and doors (in school) had lower academic achievement ($\beta$: -11.0% to -21.1%). For instance, reports of increasing neighborhood violence were associated with statistically significant decreases from 4.2 to 8.7% in math and reading achievement; increasing perceived safety was associated with significant increases in achievement from 16 to 22% (Milam et al., 2010). Students who reported that weapon possession and drug and alcohol abuse were problems at their school performed worse on reading and math assessments (Milam et al., 2010). While the sense of safety at school is not likely to be a concern to the same degree for college athletes, this study highlights the potential types of exposure to violence within these
students’ communities of origin. Milam et al. (2010) found that schools in neighborhoods with higher violence ratings consistently showed a decrease in MSA performance, which may result in a poor academic foundation that can persist into their high school and college years.

Following the work of Milam and colleagues (2010), successors extended their research by examining whether exposure to community violence is indirectly related to academic performance through anxious/depressed symptoms and delinquent behavior (Hardaway et al., 2014). The research focused on a sample of low-income pregnant adolescents (between the ages of 12 and 18) that were followed over the course of 14 years. A total of 318 mother–child pairs were seen at the end of the 14-year assessment; the sample included 158 girls (mean adolescent age was 14.5) and 160 boys (mean adolescent age was 16.5). At the 14-year follow-up, 71% of mothers were Black and 29% were White. Ninety-one percent of mothers had completed at least 12 years of school, and mean monthly household income was $2,253 ($D = $1,698). Outcomes from this study indicated that exposure to violence in early adolescence was related to an increase in delinquent behaviors, which, in turn, was related to declines in academic performance in mid-adolescence. The results of this study indicate that behavior problems that stem from exposure to community violence are detrimental to academic performance (Hardaway et al., 2014).

Borofsky and colleagues (2013) further extended this research by examining the impact of exposure to community violence on both academic performance and school engagement. School engagement is conceptualized as having emotional (e.g., enjoying being at school), behavioral (e.g., helping out at school), and cognitive (e.g., feeling interested in school) components (Fredricks, Blumenfeld, & Paris, 2004). Participants consisted of 118 adolescents
(59 girls and 59 boys, ages 12–15) from high-crime environments. Community violence was found to negatively impact both academic achievement and school engagement.

As earlier studies have validated, exposure to community violence can lead to poor academic performance and trigger aggressive and delinquent behaviors. Hardaway et al. (2014) further suggested that investigating self-regulation is one of three primary directions for future research with this special population. They also suggested examining other social and cognitive mediators that may underlie the association between community violence exposure and academic performance (Hardaway et al., 2014).

**Aggression**

Prospective research reveals that exposure to community violence contributes to conduct and externalizing behavior problems, independent of exposure to child maltreatment and intimate partner violence (McCabe, Lucchini, Hough, Yeh, & Hasen, 2005). Several social cognitive theories suggest that cognitive factors serve a central mediating role between exposure to violence and aggression. Specifically, these models suggest that an external event, “such as witnessing a violent event, can trigger cognitive schemas, which serve as primary filters or guides in searching for a script” (McMahon, Felix, Halpert, & Petropoulos, 2009, p. 896). For individuals who live in high-crime environments, this theory suggests that they will have more aggressive scripts than those who do not (McMahon et al., 2009).

Children who are raised in violent communities are socialized to accept aggression as normal, as beliefs supporting aggression and aggressive behaviors are often reinforced and modeled by peers, parents, and community members as a source of survival (Bennett & Fraser, 2000). Relatedly, results show that aggressive youth have high self-efficacy in engaging in aggressive acts (e.g., Crick & Dodge, 1994; Quiggle, Garber, Panak, & Dodge, 1992) and lower
levels of self-efficacy for withdrawing from provocative situations than their peers (Crick & Dodge, 1994). McMahon et al. (2009) conducted a study that examined the relation between exposure to community violence and aggressive behavior among urban African American youth who lived in a public housing development community. In particular, they examined a model that predicted exposure to community violence would lead to aggression through cognitive mediators.

Participants comprised 126 (118 African American, 8 mixed race) elementary school children (K–8) who lived in a Chicago public housing development, of which 96–100% were low income. Participants completed the Screening Survey Exposure to Community Violence Scale (Richters & Saltzman, 1990) and The Children’s Exposure to Violence Scale (Richters & Martinez, 1990), along with other measures that assessed normative beliefs, self-efficacy, and aggression. McMahon and colleagues (2009) found that more exposure to violence was related to higher retaliatory beliefs about aggression, and more retaliatory beliefs supporting aggression were associated with less perceived self-efficacy to control aggression. Also, less self-efficacy was related to more aggressive behavior, and higher levels of exposure directly predicted more frequent aggressive behavior (McMahon et al., 2009).

This article extended the literature by first focusing on a very specific population (high-risk, African American urban youth) and by exploring direct and indirect victimization, as well as an indirect effect through cognitive mediators (McMahon et al., 2009). Most importantly, this article supports that any exposure to violence increases the risk of aggressive behaviors and delinquency (e.g., Osofsky, Wewers, Hann, & Fick, 1993; Richters & Martinez, 1993). Unfortunately, the study was limited in that the sample size was low, and the research only relied on self-reported accounts.
As research has suggested, exposure to violent activities in the community leads to an increase in normative beliefs that support aggression and aggressive fantasies which, in turn, lead to an increase in aggressive behaviors (e.g., McMahon et al., 2009). Additionally, these studies have confirmed that exposure to violent events in the community, either as a witness or as a victim, increase the chance of developing aggressive behaviors. Chaux and colleagues (2012) investigated the relationship between community violence and reactive and proactive aggression, as well as if cognitive and emotional variables mediated the relation. They also wanted to know how aggression and its related cognitive and emotional variables compare between children and adolescents who are exposed to community violence.

Proactive aggression is rooted in Bandura’s (1973, 1986) social-cognitive learning theory, which states that behavior is learned from the environment through observation. On the other hand, reactive aggression is rooted in the frustration-aggression model (Berkowitz, 1993), which indicates that frustration is more likely to lead to aggression if the aggressive behavior helps to eliminate frustration. Typically, those who exhibit reactive aggression are often angry and have an emotionally dysregulated quality (Card & Little, 2006). Card and Little (2006) suggest that engaging in reactive or proactive aggression may serve as a marker for different underlying factors that directly link to psychosocial adjustment. These factors may involve proximal social cognitions; for example, one might expect that the different social cognitions underlying each type of aggression may be distinctly related to other aspects of psychological functioning (e.g., internalizing problems) as well as differentially affecting peer functioning (e.g., peer acceptance; Card & Little, 2006).

Chaux et al. (2012) examined the relationship between exposure to community violence and aggression in a sample of 1,235 children and adolescents from Bogota, Colombia. Reactive
and proactive aggression was measured with The Reactive-Proactive Aggression Questionnaire (PRQ; Raine et al., 2006), and exposure to community violence was measured by a set of 3 questions. The findings supported other studies of community violence (Brookmeyer, Henrich, Schwab-Stone, 2005; Flannery, Wester, & Singer, 2004; Gorman-Smith, Henry, & Tolan, 2004) in which they, too, found that exposure to community violence increases the chances of aggressive behaviors, both proactive and reactive. Structural equation models indicated that the aggregate of psychological factors measured (lack of guilt with aggression, hostile attribution of intent, positive expectations with aggression, and beliefs legitimizing aggression) mediated almost 60% of the effect of exposure to community violence into reactive and proactive aggression (Chaux et al., 2012). More specific analyses indicated that beliefs legitimizing aggression had stronger mediation effects on both reactive and proactive than all the other factors (Chaux et al., 2012). In addition, they found that children and adolescents exposed to higher levels of community violence feel less guilt after using aggression, expect more positive results when using aggression, have more beliefs legitimizing the use of aggression, and attribute more negative intentions to others. However, these findings may be less antisocial and more so reaction to trauma. For example, Allwood, Bell-Dolan, and Husain (2002) found that children who are exposed to violent acts of war, such as murders and rapes, exhibited higher levels of traumatic reactions and emotional and behavioral maladjustment than children who were not exposed to war. Although this finding discusses exposure to war, it can be related to children who are exposed to or witness frequent acts of community violence.

**Self-Regulation**

The proximal cause of violence is often a failure or breakdown of self-control (DeWall, Baumeister, Stillman, & Galliot, 2007). Self-regulation or self-control is a limited resource that
operates like a strength or energy, and when this capacity has been depleted by prior use, people become less successful at self-regulation, and so they should be more likely to act aggressively if the aggressive impulse arises (DeWall et al., 2007). Murphy and Eisenberg (1997) showed that children with dispositionally poor self-regulation (as rated by teachers) had more angry conflicts with others and acted out more hostile responses to anger in a role-playing scenario. Krueger, Caspi, Moffitt, White, and Stouthamer-Loeber (1996) showed that poor self-control was associated with aggressive and delinquent behavior among preadolescent and early adolescent boys. Overall, poor or failing self-control leaves people more likely to act aggressively when aggressive impulses are stimulated.

An unsafe environment may compromise focus on school and decrease feelings of academic efficacy, but alternatively, low proficiency at school could lead to greater involvement in risky environments that include violence exposure (Borofsky et al., 2013). Comparatively, low-income parents are more susceptible to experience stress, and stress left untreated may result in mental health issues and can lead to poor parenting and may adversely affect the child’s development (Flouri et al., 2014). While some children escape this risk with resilience, others do not. Verbal cognitive ability has been a strong predictor of emotional and behavioral adjustment in children (Bornstein, Hahn, & Suwalsky, 2013) and is related to socioeconomic status and emotional and behavioral adjustment in disadvantaged children. These outcomes suggest that children with a high verbal ability have an increased chance of a high capacity of self-regulation.

Beyond the capacity to direct and focus one’s actions and/or attentions to meet one’s goals, self-regulation may also refer to delay-of-gratification, conscientiousness, self-discipline, and executive functioning (Flouri et al., 2014). Early self-regulation has been linked to positive outcomes such as academic success and readiness (Blair & Razza, 2007). It has also been
negatively associated with mental health problems, particularly externalizing difficulties and adult problems with physical health, substance abuse, and criminal offending (Flouri et al., 2014). Moreover, self-regulation has been widely associated with executive functioning (Carver & Scheier, 2012; Hofmann, Schmeichel, & Baddeley, 2012).

Whitney, Hinson, and Jameson (2006) tested whether a theoretical framework based on characterizing individual differences in executive functioning can serve as a useful approach to understanding problems in control over behavior. They measured executive functioning on two groups of college students, those who reported a substantial number of problems with drinking alcohol (11 males and 9 females) and a control group who had experienced few alcohol-related problems (10 males an 10 females). The participants ranged in age from 18 to 24 years. The most salient finding of the study was that control over alcohol misuse was related to poor executive control.

A significant amount of research regarding self-regulation and college students has been done in the area of alcohol use (Borsari & Carey, 2003; Brody & Ge, 2001; Simons, Gaher, Correia, Hansen, & Christopher, 2005), specifically because college students are at an increased risk for both alcohol use and alcohol-related problems (Connell, Gilreath, & Hansen, 2009; Wechsler, Lee, Kuo, & Lee, 2000). Kuvaas, Dvorak, Pearson, Lamis, and Sargent (2014) defined self-regulation as “the self-exerting control to override a prepotent response, with the assumption that replacing one response with another is done to attain a goal and conform a standards (p. 148).” Using this definition, the concept of self-regulation can be broken down into two components: behavioral and emotional self-regulation. Emotional self-regulation involves a complex process that we use to influence which emotions people have, when they have them, and how they experience and express them (Kuvaas et al., 2014). On the other hand, behavioral
regulation has an impulsive factor along with disinhibition, self-control, and/or constraint (Kuvaas et al., 2014).

Kuvaas and colleagues (2014) investigated both emotional and behavior self-regulation on latent drinking in college students. Results indicated that students who reported the most alcohol use had higher levels of sensation seeking and lower self-control compared to the group consuming the least amount of alcohol. Furthermore, there was an increasing trend for behavioral self-regulation as alcohol involvement increased (Kuvaas et al., 2014). These findings indicate that emotional and behavioral self-regulation play a major role in college students’ ability to limit the amount of alcohol intake. Implications from the study validated the relationship to poor self-control and engaging in problematic behaviors, in addition to suggesting important difference in behavioral and emotional self-regulation across drinking classes. However, authors noted that poor emotional functioning may be a consequence of problematic alcohol consumption rather than an antecedent. Other limitations include, the homogeneous college student sample and a low response rate.

The capacity for self-regulation seems to be very important for individuals who come from disadvantaged communities. They are at an increased risk for delinquent behavior, disruptive behavior, inattention, and impulsivity (Hardaway et al., 2014). Furthermore, self-regulation may distinguish those who end up in jail and those who make it to college. Yet, there is a paucity of research in investigating self-regulation in college students outside of substance use and academic performance. The purpose of this research is to study college athletes from high-crime communities and assess their self-regulation capacity. Furthermore, this study will extend literature by investigating the impact the quality of relationship between coach and athlete has on the athlete’s ability to self-regulate outside of sport.
Academic Self-Efficacy

Accumulating evidence indicates that community violence exposure is negatively related to multiple domains of functioning, including academic outcomes (Bowen & Bowen, 1999; Delaney-Black et al., 2002; Hardaway et al., 2014; Milam et al., 2010). Additional data have found that self-efficacy is associated with academic outcomes (e.g., Zajacova et al., 2005; Fenning & May, 2013; Galyon, Blondin, Yaw, Nalls, & Williams, 2012; Richardson, Abraham, & Bond, 2012; Rigali-Oiler & Kurpius, 2013). Given that exposure to community violence can affect individuals in all aspects of life, it may further affect their self-efficacy as it relates to their academic performance. Bandura (1997) defines self-efficacy as a person’s belief that she or he has the ability to perform a particular activity or behavior. Self-efficacy is grounded in a larger theoretical framework known as social cognitive theory, which postulates that human achievement depends on interactions between one’s behaviors, personal factors (e.g., thoughts, beliefs), and environmental conditions (Bandura, 1986, 1997). Compared to students who doubt their beliefs in performing specific tasks, those who feel efficacious for learning or performing a task “participate more readily, work harder, persist longer when they encounter difficulties, and achieve at a higher level” (Pajares & Schunk, 2001).

Somewhat surprisingly, self-efficacy has been shown to weaken in some students as they progress through school (Pintrich & Schunk, 1996). This decline has been attributed to various factors including greater competition, more norm-referenced grading, less teacher attention to individual student progress, and stresses associated with school transition (Pajares & Schunk, 2001). These and other school practices can weaken academic self-efficacy, especially among students who are less academically prepared to cope with increasingly challenging academic tasks (Pajares & Schunk, 2001). Comparatively, researchers report that boys and men tend to be
more confident than girls and women in academic areas related to mathematics, science, and technology (Meece, 1991; Pajares & Miller, 1994; Wigfield, Eccles, & Pintrich, 1996). On the other hand, male and female students exhibit similar confidence in areas related to language arts, despite the fact that achievement of females is typically higher (Pajares & Schunk, 2001). These findings provide a foundation of the meaning and role of self-efficacy as it relates to academic performance, as well as other areas that may influence academic self-efficacy (e.g., gender, grade level, community).

Students not only need to have the ability and acquire the skills to perform successfully on academic tasks, they also need to develop a strong belief that they are capable of completing tasks successfully. According to Pintrich and DeGroot (1990), having high self-efficacy may therefore lead to more positive learning habits such as “deeper cognitive processing, cognitive engagement, persistence in the face of difficulties, initiation of challenging tasks, and use of self-regulatory strategies” (p. 33). Hsieh and colleagues (2007) examined the interaction between students’ goal orientation and self-efficacy and investigated how students with varying self-efficacy levels and academic standings differ in their adoption of academic goals and college achievement. Data from this study revealed not only distinctions in students’ academic task approach but also different beliefs about their capabilities to be successful in college. Students who believed that they were capable of being successful (high self-efficacy) adopted more mastery goals in their approach to completing academic tasks than students who reported low academic self-efficacy. Additionally, students who were labeled as less successful, based on their grade point average (GPA), adopted goals that were debilitating to their learning (e.g., did not seek academic help due to concerns of looking “bad”; Hsieh et al., 2007). These students are
more concerned about failing and looking incompetent rather than learning and view failure and help-seeking as a sign of weaknes (Midgley & Urdan, 2001).

Moreover, results were consistent with previous findings suggesting that self-efficacy was a strong predictor of academic achievement (Bandura, 1997; Lane & Lane, 2001; Pajares & Miller, 1994; Pintrich & DeGroot, 1990; Schunk, 1982). A more salient finding was that self-efficacy was found to be related to adoption of mastery goals. Previous research on junior high students found that students who have high self-efficacy and adopt mastery goals tend to value effort, persist in the face of difficulty, engage in academic tasks, and have high achievement (Linnenbrink & Pintrinch, 2002), which was found to lead to successful college performance and graduation.

Self-efficacy has been related to persistence, tenacity, and achievement in educational settings (Bandura, 1986; Schunk, 1981; Zimmerman, 1989). Self-efficacy leads to higher goals being set (Wood, Bandura, & Bailey, 1990), and high goals increase the positive effects of self-efficacy by providing an evaluative context to aid self-regulation. Chemers, Hu, and Garcia (2001) conducted a longitudinal study of first-year university student adjustment and examined the effects of academic self-efficacy and optimism on students’ academic performance, stress, health, and commitment to remain in school (Chemers et al., 2001). Consistent with the findings of previous studies, academic self-efficacy was significantly and directly related to academic expectations and academic performance. Markedly, results indicated that after accounting for the effect of high school grade point average (GPA), academic self-efficacy still has predictive power above and beyond objective measures (Chemers et al., 2001). More recent research further validated that self-efficacy is most strongly related to class participation and exam performance than GPA (Galyon et al., 2012). With this in mind, the present study will
emphasize academic self-efficacy as a predictor of academic performance. In addition, this research is geared towards all collegiate student athletes, regardless of year.

Instead of solely looking at the impact of self-efficacy on academic performance (nonspecific to any population), other authors took a different perspective and targeted immigrant and minority college freshman (Zajacova et al., 2005). Their study examined the joint effect of academic self-efficacy and stress on academic performance and retention for college freshman, explicitly focusing on assessing the relative importance of these two variables in explaining college success. The participants in the study included 107 first-semester freshmen (27% female, 73% male). Participants were nontraditional (students who commute to school and often study part-time), minority (Black, Hispanic, Asian, and other), and immigrant students with a mean age of 20.7 years. Zajacova and colleagues’ (2005) research was guided by four research questions; however, the two that are most associated with the present study explored the absolute and relative effects of self-efficacy and stress on academic outcomes and the effect of demographic factors on academic success and persistence. Identical to previously mentioned studies, academic self-efficacy was shown to be a predictor of academic success, but demographic variables were not shown to be predictors of academic success (i.e., revealed no differences in academic persistence between the two groups of students). This finding is consistent with recent research that compared racial/ethnic minority and European American students (freshman and sophomore; Rigali-Oiler & Kurpius, 2013). Although this specific study investigated demographic variables, it did not consider the effects of socioeconomic class. As research reports, these individuals are at an increased risk for low academic performance (Lam, 2014; Martens et al., 2014), which can be attributed to low academic self-efficacy.
Beyond the factors already mentioned, simply being a student–athlete presents academic challenges. For all students entering college, the ultimate goal is graduation. For student–athletes this is not always the case. Lederman (1991) reports that Division 1-A football players graduated at a rate of 42% while male basketball players achieve only a 32% graduation rate. While these findings may seem like the stereotypical athlete (Stone, Harrison, & Mottley, 2012), more recent research has shown an increase in graduation rates among all student–athletes. For student–athletes who entered college in 2007, eighty-four percent graduated within 6 years (NCAA, 2014). Football student–athletes in the Football Bowl Subdivision graduated at a 75% rate, a 4-point percentage increase and African American Football Bowl Subdivision student–athletes increased their graduation success rate by 4 points (NCAA, 2014). These findings are indicative of changes made within the athletic program as it relates to the athlete’s success within academia.

Why is achievement in academia important for the student–athlete? Statistics show that very few high school and college athletes become professionals in their sports (DeBrock, Hendricks, & Koenker, 1995). There are more than 460,000 NCAA student–athletes, and fewer than two percent will go pro in sports (NCAA, n. d.). Despite student–athletes graduating at a higher rate than non-student athletes, there still remains a disparity between athletic success and undergraduate graduation rates (Rishe, 2003). Higher levels of athletic success create a difference (decline) in academic performance and ultimately graduation rates (Rishe, 2003). Rishe conducted a study comparing student–athletes’ and non-student athletes’ graduation rates and found that pressures to succeed athletically compromised athletes’ relative academic standing compared to other students. Additionally, he found that women have higher graduation
rates than men for the entire population of students, and this difference is exacerbated the more prominent a school’s athletic program (Rishe, 2003). Although the sample was not large enough to also evaluate the effects of athletic performance on GPA, this finding seems to be consistent within all literature regarding gender comparison (Meyer, 1990).

Adler and Adler (1985) examined the relationship between athletic participation and academic performance among athletes involved in big time college sports. They conducted a qualitative study over the course of 4 years asking only basketball players about their academic attitudes, goals, and involvement in their first months on campus. Next, they analyzed their involvement in university life—athletic, social, and classroom—and the impact of this involvement on their academic attitudes and performance. Academic performance was affected by the professionalization of the sport, media attention, demand of the sport (time), fatigue, and restricted time for studying (Adler & Adler, 1985). Academic performance was also shown to be affected by coach’s intervention in their academic lives. Assistant coaches handled academic matters for the athletes, declaring their majors, registering them for courses, adjusting their schedules, and periodically contacting their professors (to monitor their progress; Adler & Adler, 1985). In spite of this research being outdated, this particular role of the assistant coach continues to be true today in most settings (Adler & Adler, 1985; Bloom et al., 1998). Athletes, therefore, are less involved in their academic decisions, and as a result they fail to develop the knowledge, initiative, or the interest to handle these academic matters themselves (Adler & Adler, 1985).

Even though many athletes enter college being very optimistic about their academics, eventually their perspectives change and they begin to re-evaluate the feasibility of their original optimism (Adler & Adler, 1985). This lack of motivation or confidence causes these athletes to
be less successful and to perform poorer than student-athletes who continue to be idealistic. With this in mind, analyzing their own academic self-efficacy will be imperative in determining their academic outcome. Although this article was written in 1985, the findings are significant and imply that there is a relationship between the coach and athlete relationship and academic performance, as well as academic self-efficacy and academic performance.

Similar to Adler and Adler (1985), Meyer (1990) replicated the study but only focusing on women basketball and volleyball players. The major difference concerned the importance of academics. While both groups entered college with idealistic views of education, the women’s optimism was strengthened over time, whereas the men lost interest after one year (Adler & Adler, 1985; Meyer, 1990). The decline in optimism for men may further be explained by the contributing factors suggested by Pajares and Schunk (2001; e.g., stress associated with transition, greater competition and less academically prepared). Furthermore, Meyer found that men abandoned their idealistic attitudes and stressed importance in the gym over performance in the classroom (Adler & Adler, 1985). Meyer explains that this difference may be due to the different ways women and men view the sport and the recognition they receive. The recognition males received for athletic accomplishments may have encouraged them to see themselves as athletes only. Since they saw athletics as a business or as a job, they may have viewed academics as a peripheral activity. Conversely, the lack of recognition for women’s sport and the androcentric nature of sport may have prevented women from concentrating their identity entirely in athletics (Meyer, 1990). Although this research is over 10 years old, these findings are still salient because women continue to receive less recognition and funding than men do in athletics and are also less likely to expect that they will go professional.
Academic problems for athletes occur almost exclusively in the revenue sports of football and basketball. Specifically, Black athletes have lower graduation rates and GPAs as compared to White athletes. Society’s promise that sports will lift Black youth from poverty to riches and fame is a cruel illusion (Lapchick, 1989). A significant amount of research shows that minority athletes’ academic performance and graduation rate is lower than the majority (Gaston-Gayles, 2004; NCAA, 2002). For example, in 2002 White basketball players graduated at a rate of 53%, but Black basketball players graduated at a rate of 35%. White football players’ graduation rate was 62%, and Black football players experienced a 45% graduation rate. These findings are relevant as minorities make up the vast population of those who live in violent communities.

By and large, student–athletes are a special population to study and so is their level (or lack thereof) of academic achievement. Research is consistent in saying that statistically student–athletes have higher graduation rates than non-athletes, but this is comparing all athletic teams to all non-student–athletes. As mentioned earlier, those who participate in revenue sports (football and basketball) seem to perform worse academically (NCAA, 2002), which may be at least partially attributed to their lower SES. As anecdotal research suggests, a significant proportion of football and basketball players are African American who come from high-crime, low SES communities. Additionally, minority student–athletes perform worse than White student–athletes (Gaston-Gayles, 2004; NCAA, 2002). Although minorities may be at a higher risk of poor academic performance, the evidence suggests that having high academic self-efficacy will strengthen academic performance regardless of demographic variables (e.g., race, student–athlete, non-athlete, SES; Comeaux & Harrison, 2011; Richardson et al., 2012).
African American Student–Athletes

Black student athletes desire to play on the professional level more than White athletes. Parmer (1994) calls this desire “the athletic dream” and defined it as “a multi-dimensional set of behaviors and fantasies propelled by the desire to pursue superstardom through sport participation” (p. 333). Demands and career aspirations associated with college sports have also been linked to the failure of some athletes to balance academic and athletic tasks (Adler & Adler, 1991; Simons, Van Rheenen, & Convington, 1999). In addition, African American and other minority student–athletes may face negative or ambiguous evaluations both of their ethnic group membership and their athletic status, and revenue sport student–athletes may be especially at risk for “dumb jock” evaluations (Killeya, 2001). These evaluations can be reinforced, and athletes may develop confirmation biases, believing that they are only good at athletics and are not expected to be good at academics (stereotype threat bias; e.g., Abrams, Eller, & Bryant, 2006). Furthermore, the overwhelming influence of media and media images is often cited as significant in influencing the values of African American males (Beamon & Bell, 2006). The result of this is that African American athletes tend to over identify as athletes, rather than students. Adding to the problem, student–athletes have been reported to have behavioral problems off the field (Beamon & Bell, 2006). Social and behavioral problems have gained the attention of the media at an increasing rate, and Division 1 athletics have increasingly made national headlines in the last decade. The results have been that the careers of some of these student athletes are cut short despite their excellent performance in their sport. The impact of these observed occurrences is that the probability of success for these young people is extremely small (Beamon & Bell, 2006).

Beamon and Bell (2006) studied a college football team and examined the degree of emphasis placed on athletics compared to that of academics. The sample consisted of 51%
African American/Black, 44% Caucasian, 2% Native-American, 1% Hispanic, and 2% Asian American football players. African American respondents were found to have less emphasis on academics than the Caucasian participants. Additionally, while neither Caucasian nor Black athletes were found to be terribly unsuccessful academically, Black players had higher incidences of probation, suspension, and ineligibility than Caucasian players. Beamon and Bell (2006) speculate that higher incidences may be attributed to expectations and racism. Due to low expectations of Black student athletes, they may face more difficulty in front of academic review boards and more likely be suspended instead of given a second chance (Beamon & Bell, 2006). Limitations of the study included low internal validity, small sample size, and the possibility of influence by researcher due to the qualitative design.

**Mentoring in the Community**

Many African American boys who come from high-crime communities grow up without their fathers, due to incarceration or death. They live in environments where there are few positive role models and often times tend to follow other males who are involved in criminal or delinquent behavior (e.g., gangs). The scarcity of role models in their lives have led to the increase and involvement of mentoring programs in these communities. Mentoring programs for young people have proliferated rapidly in recent years and now serve more than two million youth in the U. S., most of whom are from disadvantaged social and economic backgrounds (Cavell et al., 2009). While mentoring in disadvantaged communities has become more prevalent, there is a lack of research supporting the effectiveness of these programs. Historical mentoring programs such as Big Brothers Big Sisters agency and the Boys and Girls Clubs are well known for their assistance in these communities, yet evidence of their utility is inconsistent. Particularly, some parents of at-risk youth report a significant change in their youth and others do
not. Royse (1998) suggests that this may be due to the length of time the youth is paired with the mentor, the mentor’s developmental level, and the lack of investment into the child’s life.

In spite of the inconsistency in data, there is and remains a perceived significant need of a positive role model in disadvantaged or at-risk children’s lives. An estimated 8.5 million youth (about 20%) lack caring adults in their lives, and those from disadvantaged homes and communities are overrepresented in this number (Cavell et al., 2009). Other research shows that young people who lack a strong relationship with a caring adult will grow up much more vulnerable to many difficulties, including academic failure or involvement in delinquency (Rhodes & DuBois, 2006). Cavell et al. (2009) stated that mentoring programs have been shown to “improve self-esteem, better relationships with parents and peers, greater school connectedness, improve academic performance, and reduce the risk of substance abuse, violence, and other risky behaviors” (p. 2). These findings suggest that one person can make a significant difference in a child’s or adolescent’s life. By extension, these findings suggest that having a positive, caring role model may continue to be significant in young adulthood, and the coach in an athlete’s life may be perceived as that person.

**The Coach–Athlete Relationship**

The relationship between the athlete and coach has been found to play a significant role in the athlete’s life as it may affect performance in and outside of the sport (Jowett & Poczwardowski, 2007; Mageau & Vallerand, 2003; Swanson, 2014). Particularly, Felton and Jowett (2013) stated that “the athlete’s perception of supportive-autonomous coaching behaviors and high-quality coach-athlete relationships may serve to fulfill important psychological needs” (p. 138). Felton and Jowett examined the association between different dimensions of the social environment (e.g., coaching behaviors, and C–A relationship quality), athletes’ experiences of
psychological needs satisfaction within the coaching relational context, and well-being. These researchers employed the self-determination theory (Ryan & Deci, 2000) to further study and explain the effects of the social environment on peoples’ well-being. The self-determination theory is an investigation of people’s inherent growth and innate psychological needs that are the basis for the self-motivation and personality integration, as well as for the conditions that foster those positive processes (Ryan & Deci, 2000), coupled with the manner in which personality develops and self-regulation (Ryan, Kuhl, & Deci, 1997).

The basic psychological needs theory (BPNT) suggests that three basic needs must be satisfied to ensure ongoing psychological growth, integrity, and well-being (Ryan & Deci, 2000). These include the need for autonomy, competence, and relatedness. With this in mind, Felton and Jowett (2013) speculated that given coaches’ instrumental place within sport, the quality of the relationship they develop with their athletes forms a platform for experiencing basic need satisfaction to a greater or lesser extent. Investigators studied a total of 300 athletes from both individual and team sports who were predominately White British (88%) and 36% males and 64% females. Findings suggested that coaches who exhibited autonomy-supportive behaviors (e.g., provide an environment that is understanding, give players a space to make their own decisions) positively predicted satisfaction of all three basic needs (Felton & Jowett, 2013). Relatedly, athletes’ perceptions of the quality of the C–A relationship was found to positively predict satisfaction of both the athletes’ competence and relatedness needs (Felton & Jowett, 2013). By contrast, the quality of the C–A relationship was not associated with satisfying the need for autonomy. The authors speculated that this might be due to the sample being composed of young adult athletes compared to prior research with adolescent athletes (Riley & Smith, 2011). Felton and Jowett suggest that a quality C–A relationship that is highly interdependent
may allow young athletes to increase their perceptions of autonomy in the knowledge that their coach will be there for them regardless of the outcome.

Furthermore, findings indicated that the effects of relationship quality on overall well-being and ill-being were primarily products of athletes’ perceiving their needs for competence to be satisfied within this coaching relational context (Felton & Jowett, 2013). In other words, the athlete’s need for competence in this study was more strongly related to well-being and ill-being than were relationship quality and relatedness. While this study has extended literature, it does possess a few limitations. The sample was predominately composed of White British university-aged athletes, was cross-sectional in nature limiting the casual inferences that can be drawn, and data were collected using a multi-section self-report questionnaire. Investigators suggest that future research should consider employing a longitudinal study and examining the concepts of coach autonomy-supportive behaviors to obtain a greater understanding of the social environment (Felton & Jowett 2013). Most importantly, this study recommends continued research of the quality of the C–A relationship. The present study considered this recommendation but also examined the C–A relationship in a more diverse population (African American males who live in high-crime environments). Additionally, the current study goal is to obtain a snapshot of the impact of the C–A relationship outside of sport to extend the literature on a population that has never been studied.

In any activity, hobby, or occupation there must be a source of motivation, whether intrinsically or extrinsically that keeps the individual involved. The same occurs in a sporting environment. Amorose and Horn (2000) investigated whether athletes’ perceptions of their coaches’ behavior, in combination with athletes’ scholarship status, are predictive of their level of intrinsic motivation. Participants were Division 1 male and female athletes ranging from 17 to
23 years of age and represented a variety of sports (e.g., football, field hockey, ice hockey, etc.).

Results indicated that coaches who displayed a low autocratic leadership style and who were more positive and supportive created an environment that encouraged intrinsic motivation in their athletes (Amorose & Horn, 2000). In general, results revealed gender differences related to the type of coaching style that is preferred by male athletes compared to female athletes. Even though the research was not specific to the C–A relationship, it does provide significant implications related to the topic. Particularly, coaching behaviors may impact how the athlete perceives her or his relationship with the coach. As with leadership style, this is another area that may possibly affect the C–A relationship. Additionally, the sample used in Amorose and Horn’s study is within the age range that the present study used, which implies generalizability.

Coaching behaviors have also been shown to impact self-efficacy and anxiety. Kenow and Williams (1999) sought to measure the relationships between coaching behaviors, anxiety (state, trait, state cognitive), and self-confidence. Their participants consisted of 68 female basketball players from non-scholarship programs. Similar to Amorose and Horn (2000), they found that coaching behaviors influenced the level of anxiety and self-confidence within the athletes (Kenow & Williams, 1999). Athletes who felt more compatible to their coaches experienced fewer negative/attentional and somatic effects from their coach’s behavior during game situations, and it increased their self-efficacy during competition. They also felt more supported by their coaches. This study extended literature by examining the C–A relationship of college basketball players and its impact on self-efficacy and anxiety but also came with a few limitations (i.e., small sample size and only involved female athletes).

Not only is the C–A relationship an important factor in the athlete’s motivation and psychological needs, it also affects attrition in sports. Young athletes who often drop out of
sports tend to report quitting due to a negative relationship with their coach (Pooley, 1980; Robinson & Carron, 1982). A survey of over 14,000 children between 10 and 18 years of age reported that problems with coaches were included in 5 of the top 10 reasons children stopped sports (Seefeldt, Ewing, Hylka, Trevor, & Walk, 1989). For this reason investigators examined the effects of the C–A relationship on youth sport attrition (Barnett et al., 1992). Researchers first intervened with the coaches by providing them with a training (Coach Effectiveness Training) to enhance the coaches’ ability to relate to their athletes more effectively. Players were given a pretest and posttest that addressed their outlook on the season, perception of coach, level of self-esteem, and if they planned to return. Coaches who received the training were compared to coaches who did not. Results revealed that the players of coaches who received the training had lower attrition rates when compared to players whose coaches did not attend the training. Also, players who had high self-esteem reported their coach as being more responsive and more supportive. As this sample did not include college-age athletes, the authors acknowledged that future research should include athletes of older ages (Barnett et al., 1992). In general, as with all research stated thus far, a higher quality relationship seems to impact the athlete in a more positive way (Barnett et al., 1992; Choi, Cho, & Huh, 2013; Felton & Jowett, 2013; Jowett & Chaundy, 2004).

The relationship between coach and athlete is a decisive factor for performance in competitive sport (Philippe & Seiler, 2006). The common goal for both entities is for the athlete to perform at their optimal level. Philippe and Seiler conducted a qualitative study on five elite male swimmers. The aim of this study was to examine Jowett and colleagues’ model utilizing the constructs of closeness, co-orientation, and complementarity (3 Cs). A second purpose was to compare this model with other alternative models that examined this relationship with “top
level” sports (Philippe & Seiler, 2006). According to the authors, the three Cs constitute the basis of the C–A relationship. Closeness was represented by “positive feelings” that bond the relationship members (Philippe & Seiler, 2006). Co-orientation was portrayed as the need to establish a common ground (Philippe & Seiler, 2006). Complementarity was interpreted as the capacity to accept the other’s roles, tasks, and responsibilities (Philippe & Seiler, 2006). The swimmers in the study indicated that the C–A relationship must be positive, and if not, the best option is to find another coach (Philippe & Seiler, 2006).

While the study validated the need for the three Cs in the C–A relationship, it is difficult to generalize the findings due to the small sample and sport (limited to swimming). Additionally, qualitative studies tend to provide a limited amount of information. Philippe and Seiler (2006) endorsed investigating the perspectives of both the coach and athlete and obtaining each dyad’s perspective on their relationship, as well as extending the sample to include female athletes, as they may reveal different findings. The present study examined male athletes by conducting a quantitative investigation with a much larger sample size than Philippe and Seiler (2006).

A subsequent qualitative study examined both the athlete and coach perspective on the C–A relationship (Sanches, Borras, Leite, Battaglia, & Lorenzo, 2009). Here again, it was still specific to one sport (basketball) but included both the coach’s and athlete’s perspectives on the relationship. Uniquely, their purpose was to analyze the coach–athlete relationship in basketball, knowing their antecedents, components, and outcomes (Sanches et al., 2009). Co-orientation was found to be one of the key factors in the motivation for practice, while closeness was emphasized as the most important feeling for the development of the relationship (Sanches et al., 2009). Notably, findings indicated that a close and positive relationship results in an increase in
sport performance by improving the effectiveness of training and the personal development by satisfaction and work done (Sanches et al., 2009). However, it is important to realize that the same limitations are seen in this study as the previously stated one. Therefore, future research should target a larger sample size, and use a quantitative design.

Although evidence suggests that the C–A relationship is instrumental in an athlete’s development, there is also evidence to suggest that it can become a source of stress and distraction, especially for the athlete (Jowett & Cockerill, 2003). Research conducted by Balague (1999) found that elite female athletes in gymnastics felt that their coaches only viewed them as athletes, not persons. Comparatively, other findings reported that gymnasts and figure skaters felt that their trust was betrayed by their coaches (Ryan, 1996). Due to these findings, the C–A relationship seems to be imperative for the athlete not only in sport but outside sport. Jowett and Cockerill (2003) took research a step further and explored the three Cs of the C–A relationship, the association between the three Cs, and the role and significance of the relationship in reaching top level. Participants consisted of prior Olympic medalists involving three females (average age 43) and 9 males (average age 55). Research was qualitative in nature, and interviews and written accounts were conducted and taped. Investigators categorized themes of the various interviews, and overall results showed that the interpersonal relationship between athlete and coach is significant even on an elite level and contributes to the athlete’s development (Jowett & Cockerill, 2003).

In essence, results revealed that even at the elite level of competitive sport, the interpersonal relationship between coach and athlete is an important factor that contributes to the athlete’s development (Jowett & Cockerill, 2003). Other outcomes have suggested that athletes are more likely to seek support or advice from people to whom they are close (coaches),
therefore the “formation of reliable athlete–coach relationships becomes paramount” (Jowett & Cockerill, 2003, p. 328). In contrast, these findings are limited to the way in which the method was conducted (qualitative). Authors also noted that because the athletes were recalling a previous event, it may have affected the accuracy of the data (Jowett & Cockerill, 2003). With this intention, future research should aim to tease out the negative aspect of interpersonal relationships and ascertain both the athlete and coach perspectives.

Jowett and Frost (2007) suggest that the quality of the C–A relationship can be affected by multiple factors. The factors include physical in terms of performance, psychological in terms of motivation, social in terms of significant others, and environmental in terms of culture (Jowett & Frost, 2007). Different from preceding research, Jowett and Frost examined the impact of race/ethnicity on the C–A relationship. Across the years, the number of minorities has increased in the participation in sports on all levels (i.e., collegiate and professional). While the effect of race has been studied in other domains, there are gaps in literature as it relates to the sporting environment (Ram, Starek, & Johnson, 2004). For example, White teachers tend to believe that Black children have a poorer educational future, more serious problems adjusting to school, and more stereotypically negative qualities than White children (Pigott & Cowen, 2000). Although these findings are specific to educational psychology, they remain pertinent to the topic of interracial relationships/coaching. More specific to sports, prior research indicates that coaches have different expectations of athletes from diverse backgrounds and treat athletes of particular ethnic groups differently as a result (Solomon et al., 1996). For instance, one stereotype of African American athletes is that they naturally excel in sports and have limited cognitive capabilities in the classroom (Horn & Lox, 1993). Therefore, coaches may presume
that African American athletes are gifted in sports and extend much more attention in meeting that expectation (Solomon et al., 1996).

As shown above, the C–A relationship has a significant impact on how athletes respond, physically and psychologically, in sport. The coach has a huge role in the athlete’s life; while evidence validates the impact of the relationship within sport, there remains limited research in the effect it has outside sport. For example, if the athlete perceives the relationship as being a positive one, then they, too, seem to be more positive and display more prosocial behaviors in sport and psychologically. It continues to be unclear whether the positive effects may extend to the athletes’ lives outside of sport; therefore, this research aims to investigate the impact the C–A relationship has on the athlete’s functioning unrelated to the sport itself.

**Summary and Conclusions**

Growing up in a violent community can have several negative impacts. Individuals who are from high-crime communities are at a higher risk for aggressive behavior, low academic performance, and low self-regulation. Specifically, African American male students graduate at a lower rate when compared to other races and tend to put academics second, as their main focus is to obtain a professional athletic career. In spite of the odds of them making it, the lack of perceived success (other than sports and music) within their community has been associated with a decrease in school engagement. Descriptively, these athletes come from single-parent homes with low incomes and often times lack a positive, caring figure in their lives. Without a positive figure in their lives they may find it more difficult to perform well in all areas in life, not just their sport.

Having a positive role model has been shown to increase performance in academics, improve self-efficacy, and ultimately reduce the chance of delinquent behavior. In respect to the
C–A relationship, athletes who reported a positive relationship with their coach also showed improvement in their athletic performance, increased motivation within sport, and reduced anxiety among other things. It is expected that as the relationship between the coach and athlete is able to influence positive behaviors in sport, it will do the same for the athlete outside of sport. The literature presented in this chapter offers evidence to the significant role the coach has in the athlete’s life. Yet, there remains a paucity of research in studying the impact the relationship has on African American male athletes who are from high-crime environments. The present study examined the quality of the relationship between African American male athletes who have been exposed to community violence and their coach, while examining its effects on the athlete’s behavior out of sport.
CHAPTER III

METHODOLOGY

This chapter provides an outline of how the current study was conducted. The study design, study participants, data collection method, and procedure are described. Additionally, there is a review of the measurement instruments. The validity and reliability of each instrument will be discussed. Finally, the hypotheses and statistical analysis for each hypothesis will be explained.

Study Design

This study used a cross-sectional quantitative research design to collect data. An exploratory cross-sectional design was employed to answer the study research questions and hypotheses. The study instruments were administered through Seton Hall University’s online survey platform, Qualtrics.

Instruments

Participants were asked to complete four self-report assessments. The study included an inclusion criteria (Appendix B), demographic questionnaire (Appendix C), and the following instruments: (a) Coach–Athlete Relationship Questionnaire (CART-Q; Jowett, 2005; Jowett & Ntoumanis, 2004; Appendix E); (b) The Reactive-Proactive Aggression Questionnaire (RPQ; Raine et al., 2006; Appendix D); (c) Academic Self-Efficacy Subscale (Zajacova, Lynch, & Espenshade, 2005; Appendix F); and (d) Short Self-Regulation Questionnaire (SSRQ; Carey, Neal, & Collins, 2004; Appendix G). Completion of all measures was expected to take a total of approximately 10 to 15 minutes.
**Inclusion Criteria**

The criteria for inclusion of subjects were as follows: Participants were African American male college basketball players who were (a) over the age of 18, (b) who attended a college or university, (c) who were on their current team for at least one year, and (d) who were exposed to community violence in their home communities. The inclusion to study required that athletes report being a college male basketball player and report previous or current exposure to community violence. The rationale for using a self-identifying question instead of a scale measuring violence exposure with detailed questions was to protect subjects from unwanted harm. The majority of research on individuals from high-crime communities has used the Modified Version of the Survey of Exposure to Community Violence (SECV; Lofving-Gupta et al., 2015), which focuses on violent events within the past year. However, since the investigator was not present during testing and unable to monitor negative or traumatic reactions to specific questions about the violence to which the individual was exposed, using a general self-identifying question was the best option to protect participants. Further, this study focused on the cumulative effects of exposure over time. Research shows that individuals who grow up in high-crime environments and are exposed to community violence during childhood and adolescence may have ongoing difficulties in specific areas, which can lead to deficits in important life skills. These areas include poorer emotional regulation (Hardaway et al., 2014), proximal and long-term academic challenges (Borofsky, Kellerman, Baucom, Oliver, & Margolin, 2013; Mathews et al., 2009; Milam et al., 2010), and a high level of aggression (Bailey & Coore-Desai, 2012). All of which can hinder successful transition into the workforce, even if individuals do graduate from college.
Demographic Questionnaire

A demographic questionnaire was administered to obtain background information. Participants were asked to report personal characteristics (age, academic year, number of years on team, scholarship status, professional aspirations, and cumulative grade point average) and coach characteristics (for the coach with whom they have the most interaction, participants reported the gender of coach, race of coach, and number of years with that coach). This information was used to provide descriptive information of the sample.

Coach–Athlete Relationship Questionnaire (CART-Q)

Players were directed to answer questions on CART-Q based on the coach they have the most interaction with. The 11-item CART-Q (Jowett & Ntoumanis, 2004) has been developed and validated to measure coaches’ and athletes’ self-perceptions of feeling in terms of closeness, thoughts in terms of commitment, and behaviors in terms of complementarity. Of the 11 items, 3 items measure the construct of commitment, 4 items measure the construct of complementarity, 4 items measure the construct of closeness, and 2 additional items were added to measure interpersonal satisfaction. All items are measured on a 7-point Likert scale, ranging from 1 (strongly disagree) to 7 (strongly agree). The development of this questionnaire began in a series of qualitative case studies on British athletes in order to ascertain the nature of the coach–athlete relationship (Jowett & Meek, 2000, 2002). Jowett and Ntoumanis began their investigations by defining unique interpersonal relationship as the situation in which coaches’ and athletes’ emotions, thoughts, and behaviors are mutually and causally interconnected. After results from the qualitative studies were generated, Jowett and Ntoumanis began to develop a self-report instrument that assessed the nature (i.e., quality and quantity) of the coach–athlete
relationship. To provide psychometrics on the new self-reported instruments, Jowett and Ntoumanis conducted two studies.

The first study comprised 120 British participants of which 50% were athletes, and 50% were coaches. Participants were selected based on the following criteria: (a) a chronological age of at least 16 years for both coach and athlete and (b) a coach–athlete relationship of at least 6 months. Of the participants, 65% were males and 33% were females, all of which performed in individual sports (e.g., swimming, tennis, golf). Additionally, 17% of the participants played athletics on the collegiate level. The initial 23-item CART-Q yielded a Cronbach’s alpha of $\alpha = .80$ for Closeness, $\alpha = .78$ for Co-orientation, and $\alpha = .85$ for Complementarity, demonstrating sufficient internal consistency for all subscales (Nunnally & Bernstein, 1994). Pearson’s correlation coefficients indicated positive and moderately high relationships between the variable of interpersonal satisfaction and Closeness ($r = .75, p < .01$), Commitment ($r = .62, p < .01$), and Complementarity ($r = .59, p < .01$).

Participants in the second study were selected based on the same criteria introduced in Study 1. The sample consisted of 214 British participants; 35% were coaches and 65% were athletes. A fairly equal split was observed between those involved in team (44%) and individual (56%) sports. Team sports included basketball, football, hockey, and volleyball; 20% of the participants were collegiate athletes. The refined 11-item CART-Q maintained appropriate convergent and discriminant validity; all factor loadings were high ranging from .68 to .90 ($M = .80$) and statistically significant ($p < .001$). Similarly, reliability scores indicated Cronbach’s alphas of .82, .87, and .88, for Commitment, Closeness, and Complementarity, respectively. Lastly, the internal consistency of the refined CART-Q subscales was .82 for Commitment, .89 for Closeness, and .89 for Complementarity.
The CART-Q is a well-known measurement in the sport psychology field, particularly in assessing the relationship between the athlete and coach (e.g., Choi et al., 2013; Jowett & Frost, 2007; Jowett & Ntoumanis, 2004; Philippe & Seiler, 2006). Overall, it has demonstrated consistent reliability and validity with different levels of sport, individual and team sports, with adults, and with different races (e.g., Jowett & Chaundy, 2004; Jowett & Cockerill, 2003; Jowett & Frost, 2007). Permission was granted by authors to put the instrument online (Appendix G).

**Academic Self-Efficacy Subscale**

The Academic Self-Efficacy Subscale (ASES) was created from both the Academic Milestones scale (Lent, Brown, & Larkin, 1986) and the College Self-Efficacy Scale Inventory (Solberg, O’Bien, Villareal, Kennel, & Davis, 1993). The ASES is composed of two subscales measuring stress and academic self-efficacy and how they relate to interaction at school, performance out of class, performance in class, and managing work, family, and school. For the present study, participants were only expected to complete the Academic Self-Efficacy subscale. All 27 items were administered and analyzed and took approximately 4 to 6 minutes to complete. A Likert scale ranging from 0 (not at all confident) to 10 (extremely confident) was used to measure how confident participants were in successfully completing certain tasks (e.g., studying, asking questions in class). Academic self-efficacy was measured by the total number of all scores; higher scores indicated higher self-efficacy, and lower scores indicated lower self-efficacy. Reliability of self-efficacy subscales was as follows: \( \alpha = .87 \) (interaction at school), \( \alpha = .90 \) (performance out of class), \( \alpha = .87 \) (performance in class).

The survey was normed on a college population of 289 students including mainly nontraditional, minority, and immigrant students. The sample characteristics included males (27.1%) and females (72.9%) all of whom identified as White, Black, Hispanic, Asian, or other.
A structural equation model was used to assess the four indexes of the self-efficacy factor and the four indexes of stress; Cronbach’s alphas ranged from 0.72 to 0.90, indicating high internal validity. Permission was given to put the instrument online from authors (see Appendix I).

**The Reactive-Proactive Aggression Questionnaire**

The Reactive-Proactive Aggression Questionnaire (RPQ; Raine et al., 2006) is a 23-item questionnaire that takes approximately 3 minutes to complete. This questionnaire was originally an observational measure given to teachers who were asked to rate their students’ level of aggression. The current questionnaire consists of three scales, Reactive (11 items), Proactive (12 items), and total Aggression (summation of reactive and proactive scales); participants were asked to rate each item with a 0 (never), 1 (sometimes), or 2 (often). This scale was designed to measures adolescents’ self-reported proactive and reactive aggression. All items reflect either physical or verbal aggression and include the motivation and situational context for aggression (e.g., “Had fights with others to show who was on top,” “Gotten angry when others threatened you”). All questions are written at a third-grade reading level.

The RPQ was normed on a sample of 16-year-olds, 41.2% Caucasian and 58% African American. Item-total correlations ranged from .41 to .57 for the proactive scale, .45 to .58 for the reactive scale, and .41 to .60 for the total scale. Additional findings from a sample of East Asian school children report internal reliabilities of 0.89 (total aggression), 0.88 (proactive aggression), and 0.83 (reactive aggression for an East Asian sample of school children; Fung, Gao, & Raine, 2010).

More related to the current study, Cima, Raine, Meesters, and Pompa (2013) tested the RPQ on 845 child and adult Dutch participants. The mean age of the participants was 21.26 years old. The participants were divided into five groups: non-offender juveniles, non-offender
adults (mean age 28), childhood arrestees, juvenile offenders, adult offenders from prison (mean age 34), and adult offenders from forensic mental health institutions (mean age 38). Results revealed a significant relationship between reactive and proactive aggression scales \( r = 0.69; p < 0.01 \). Internal consistency of the complete set of administered RPQs \( n = 845 \) was good for both subscales, with Cronbach’s alphas of 0.83 and 0.87, for the reactive and proactive subscales, respectively. For the total RPQ, internal consistency was excellent (Cronbach’s alpha = 0.91). Regarding convergent validity, correlation analyses using multiple comparison corrections were conducted within several subsamples. Results revealed that the RPQ was significantly related to all subscales of aggression. The test yields good discriminant validity, criterion validity (all \( p \)’s < 0.01), and construct validity (all \( p \)’s < 0.01). Overall, there was a significant main effect of age for reactive and proactive aggression \( F(3, 838) = 9.19; P = 0.000 \), and \( F(3, 838) = 10.14; p = 0.000 \), respectively, with aggression generally increasing with age. Permission was granted to put the instrument online from authors (see Appendix H).

**Short Self-Regulation Questionnaire**

The Self-Regulation Questionnaire is a 31-item shortened version of the original 63-item Self-Regulation Questionnaire (SRQ; Brown, Miller, & Lawendowski, 1999). The questionnaire was designed to assess self-regulation capacity across the seven processes of self-regulation. These processes include the following: receiving relevant information, evaluating the information and comparing it to norms, triggering change, searching for options, formulating a plan, implementing the plan, and assessing the plan’s effectiveness. All seven dimensions were conceptualized as necessary for effective self-regulation (Brown et al., 1999). While this model was developed to study addictive behaviors, the self-regulatory processes it describes are meant to be general principles of behavioral self-control. The original SRQ is composed of a 5-point
Likert rating scale with responses ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). The total scores are computed by summing all scores. Scores ranging from 239 and above are considered a high (intact) self-regulation capacity, scores between 214 and 238 imply intermediate (moderate) self-regulation capacity, and scores that are less than 213 are considered a low (impaired) capacity of self-regulation. Twenty-seven of the items on the scale are reverse scaled (e.g., 1 = 5, 2 = 4).

Reliability of this scale consisted of a community sample of 83 people with varying levels of alcohol problem severity. The SRQ was administered twice, separated by 48 hours, to test the stability of scores it provides (Aubrey, Brown, & Miller, 1994). Test-retest reliability for the total SRQ was high ($r = .94, p < .0001$). Relatedly, internal consistency was quite high ($\alpha = .91$). Additionally, the SRQ showed strong convergent validity with concomitant measures. In the sample above, people with lower scores on the SRQ were more likely to be heavy and problem drinkers. For instance, the SRQ scores were significantly and inversely correlated with volume of consumption per occasion ($r = -.23, p = .04$) and with negative consequences of drinking ($r = -.46, p < .0001$). Moreover, in a sample of 300 college students (Brown, Baumann, Smith, & Etheridge, 1997), lower SRQ scores were associated with binge drinking, more alcohol-related consequences, and more frequent marijuana use.

Similar to the SRQ, the SSRQ endorsed the same 5-point Likert scale and is highly correlated with the longer SRQ ($r = .96$; Neal & Carey, 2005), has high test-retest reliability ($r = .94$; Carey et al., 2004), and is negatively correlated with alcohol problems. In a study investigating protective behavior strategies as a potential mediator and moderator of the relationship between self-regulation and alcohol-related problems (D’Lima, Pearson, Kelley, 2012), a mean score of ($\alpha = .92$) was calculated, indicating stronger self-regulation in 283 first-
year undergraduate students. The above results provide evidence that this scale is a good support for interpreting the total SRQ score as a reflection of self-regulatory functioning. Permission was granted to put the instrument online from authors (see Appendix J).

Methodology

Procedure

Potential participants were recruited using a solicitation email (see Appendix A) that was sent to the national board of Division I Student–Athlete Advisory Committee (SAAC; permission was given by the NCAA’s Director of Governance, also the spokesperson for this division, see Appendix L). The national board of the Division I SAAC consists of 32 members representing each Division I conference. Each national board member was asked to forward the solicitation letter to every SAAC representative within their conference (Appendix M contains a few of the national board Division I SAAC representatives who agreed to this). There is a SAAC representative for each school within Division I (total of 351 schools). This study specifically investigated Division I male African American basketball players and therefore was sent to all Division I schools. This letter sought permission from fellow student–athletes to forward the email to male basketball players at their school who meet the study criteria (i.e., African American male basketball players). Investigator was given permission to contact the SAAC committees by the NCAA’s Associate Director of Research (see Appendix L).

Protection of Human Subjects

This research study received Seton Hall University Institutional Review Board (IRB) approval before initiation. The study was not expected to have any negative consequences for participants. However, participants were provided referral information to a crisis hotline or to
their campus counseling center in the event of distress. Information transmitted from the questionnaires was converted into Statistical Package for Social Sciences (SPSS Version 22), formatted and stored on a USB memory key, which will be kept in locked, secure location in the principal investigator’s office. This information will be stored for a minimum of 3 years.

**Participants**

The study participants were a minimum of 77 males, 18 years of age and older who identified as being an African American student athlete competing in the National Collegiate Athletic Association (NCAA), participating in either basketball at a four-year university or college. Individuals who did not self-identify as being a college basketball or African American at a four-year university or college were excluded from participation. Participants were also screened based on their level of community violence exposure.

**Data Preparation**

Participant data were automatically inputted into Statistical Program for the Social Sciences (SPSS Version 22) through the Qualtrics tool. Standard data validation procedures were conducted prior to formal statistical analysis. Specifically, the Explore function within SPSS was employed to generate statistics on extreme data points, potential outliers, and missing data. Frequency of missing data is reported in the final analysis. Furthermore, the frequency function within the SPSS Version 22 analysis package was used to generate frequency distributions and measures of skew and kurtosis to establish the distribution of primary study variables and their appropriateness for parametric statistical testing. If data were not normally distributed, the proper statistical measures would be employed to appropriately transform data into a format that is suitable for analysis.
Descriptive Statistics

Descriptive statistics were calculated in the form of frequencies, percentages, means, and standard deviations, as well as a correlation matrix for all quantitative study variables. Descriptive statistics were generated to describe demographic characteristics of participants and aggregate response on all measures. Tables of demographics were developed and aggregated by respondent type to summarize the characteristics of the participants in this study, as well as overall total scores.

Power Analysis

In order to reduce the likelihood of Type II error and optimally assess study hypotheses, an a priori statistical power analysis was conducted to determine the number of participants required for this study. Publicly available freeware, G-power, was used for this purpose (Erfelder, Faul, & Buchner, 1996).

A simultaneous multiple regression was used to evaluate the relationship between the quality of the C–A relationship, self-regulation, academic self-efficacy, and reactive and proactive aggression. The number of participants was determined based on a G*Power analysis (Faul, Erdfelder, Lang, & Buchner, 2007). The analysis for this study was based on the following assumed values of α error probability 0.05, power of 0.80, effect size $f^2$ 0.15, and three predictors, for a simultaneous multiple regression. Given this analysis, an overall minimum sample size of 77 was required for this study.
Statistical Analyses

The following is a list of the statistical analysis that was used for each hypothesis:

1. Athletes who reported a positive quality relationship with their coach would report a higher capacity of self-regulation outside of sport than would athletes who reported low quality of C–A relationships. Hypotheses 1a–1c were analyzed using a simultaneous multiple regression in which the predictor variables were closeness, complementarity, and commitment, and the criterion variable was self-regulation.

   1a. Athletes who reported a higher level of closeness with their coach would report a higher capacity of self-regulation outside of sport than would athletes who reported a low level of closeness.

   1b. Athletes who reported a higher level of complementarity with their coach would report a higher capacity of self-regulation outside of sport than would athletes who reported a low level of complementarity.

   1c. Athletes who reported a higher level of commitment with their coach would report a higher level of self-regulation outside of sport than would athletes who reported a low level of commitment.

2. Athletes who reported a positive quality relationship with their coach would report a high level of academic self-efficacy when compared to athletes with low-quality relationships. Hypotheses 2a–2c were analyzed using a simultaneous multiple regression in which the predictor variables were closeness, complementarity, and commitment, and the criterion variable was academic self-efficacy.

   2a. Athletes who reported a higher level of closeness with their coach would report a high level of academic self-efficacy than would athletes who reported a low level of
commitment.

2b. Athletes who reported a higher level of complementarity with their coach would report a high level of academic self-efficacy than would athletes who reported a low level of commitment.

2c. Athletes who reported a higher level of commitment with their coach would report a high level of academic self-efficacy than would athletes who reported a low level of commitment.

3. Athletes who reported a positive quality relationship with their coach would report a lower level of proactive aggression outside of sport than would athletes who reported a low quality of C–A relationships. Hypotheses 3a–3c were analyzed using a simultaneous multiple regression in which the predictor variables were closeness, complementarity, and commitment, and the criterion variable was proactive aggression.

3a. Athletes who reported a higher level of closeness with their coach would report a lower level of proactive aggression outside of sport than would athletes who reported a low level of closeness.

3b. Athletes who reported a higher level of complementarity with their coach would report a lower level of proactive aggression outside of sport than would athletes who reported a low level of complementarity.

3c. Athletes who reported a higher level of commitment with their coach would report a lower level of proactive aggression outside of sport than would athletes who reported a low level of commitment.

4. Athletes who reported a positive quality relationship with their coach would report a lower level of reactive aggression outside of sport than would athletes who reported a low
quality of C–A relationships. Hypotheses 4a–4c were analyzed using a simultaneous multiple regression in which the predictor variables were closeness, complementarity, and commitment, and the criterion variable was reactive aggression.

4a. Athletes who reported a higher level of closeness with their coach would report a lower level of reactive aggression outside of sport than would athletes who reported a low level of closeness.

4b. Athletes who reported a higher level of complementarity with their coach would report a lower level of reactive aggression outside of sport than would athletes who report a low level of complementarity.

4c. Athletes who reported a higher level of commitment with their coach would report a lower level of reactive aggression outside of sport than would athletes who reported a low level of commitment.

Summary

This chapter was dedicated to providing information in regards to the methodology of the study. This study is a non-experimental, non-randomized study for which the independent and dependent variables under study have been specified and were analyzed by conducting multiple regressions. The population of interest for this study, African American basketball players from a four-year university or college, has been detailed along with the methods of recruitment and collection of data. Moreover, the instruments of use have been outlined, providing data pertinent to the validity and reliability of each psychometric scale. The four hypotheses of the study were also defined, as well as the statistical analysis sought to examine each one.
CHAPTER IV

RESULTS

The primary purpose of this study was to examine the quality of the coach–athlete relationship and its connection to the student–athlete’s capacity for self-regulation outside of sport, academic self-efficacy, and aggression. This study focused on African American male college athletes who self-identified as having lived in a high-crime environment. Athletes completed surveys that measured their relationship with the coach they have the most interaction with, as well as their reported self-regulation, academic self-efficacy, and reactive and proactive aggression. The goal of this study is to understand the relationship among the variables while still considering other factors that may contribute to these outcomes. In this chapter, the design of the study will be reviewed, the procedure for data screening will be presented, the descriptive statistics of the sample will be described, and the findings from each of the tested study hypotheses will be presented and discussed.

Statement of Design

A simultaneous multiple regression was used for this study. The independent variables of this study were the subcategories of the quality of the coach–athlete relationship: (a) closeness, (b) complementarity, and (c) commitment, all measured by the Coach–Athlete Relationship Questionnaire (CART-Q; Jowett, 2005; Jowett & Ntoumanis, 2004). The four dependent variables of this study were (a) self-regulation, measured by the Short Self-Regulation Questionnaire (SSRQ; Carey, et al., 2004); (b) academic self-efficacy, measured by the Academic Self-Efficacy Subscale (Zajacova, et al., 2005); and (c) reactive and proactive aggression, measured by The Reactive–Proactive Aggression Questionnaire (RPQ; Raine et al.,
2006). Questionnaires were administered through Seton Hall’s University’s online survey platform, Qualtrics.

Descriptive Statistics

Eighty-five African American male participants from NCAA regulated colleges were recruited for the present study. A priori power analysis indicated that 77 participants were required to adequately power the study. Participants were male college basketball players who self-identified as previously or currently living in a high-crime environment and who have been on their basketball team for at least one year.

As indicated, the overall sample was composed of 85 African American males. Table 1 presents demographic data for the overall sample. Participants were between the ages of 18 and 23. The mean age of participants was 20.1 years. The participant’s academic year ranged from freshman to graduate student; most participants were in their sophomore year (40%) and had been on the team for an average of 2.89 years. Participants identified their scholarship status, 55 (64.7%) had full scholarships, 26 (30.6%) had partial scholarships, and 4 (4.7%) were not on a scholarship. In terms of grade point average (GPA), participants’ averages ranged from 1.6 to 3.7, with the average GPA being a 2.78. Participants reported which coach with whom they have the most interaction: 45 (52.9%) with head coach and 39 (45.9%) with assistant coach. Participants reported to have been working with this coach for an average of 2.49 years. These coaches had the following racial identities reported by participants: White/Caucasian (47.1%), Black/African American (48.2%), Latino/Hispanic (1.2%), Mixed Race or Ethnicity (2.4%).
Table 1

*Demographic Characteristics of the Sample (N= 85)*

<table>
<thead>
<tr>
<th></th>
<th>M</th>
<th>f</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>20.1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Academic year</td>
<td>2.61</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Freshman</td>
<td>-</td>
<td>9</td>
<td>10.6</td>
</tr>
<tr>
<td>Sophomore</td>
<td>-</td>
<td>34</td>
<td>40</td>
</tr>
<tr>
<td>Junior</td>
<td>-</td>
<td>25</td>
<td>29.4</td>
</tr>
<tr>
<td>Senior</td>
<td>-</td>
<td>15</td>
<td>17.6</td>
</tr>
<tr>
<td>Graduate student</td>
<td>-</td>
<td>2</td>
<td>2.4</td>
</tr>
<tr>
<td>Scholarship status</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full-Scholarship</td>
<td>-</td>
<td>55</td>
<td>64.7</td>
</tr>
<tr>
<td>Partial Scholarship</td>
<td>-</td>
<td>26</td>
<td>30.6</td>
</tr>
<tr>
<td>Non-Scholarship</td>
<td>-</td>
<td>4</td>
<td>4.7</td>
</tr>
<tr>
<td>Number of years on team</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>-</td>
<td>8</td>
<td>9.4</td>
</tr>
<tr>
<td>2</td>
<td>-</td>
<td>31</td>
<td>36.5</td>
</tr>
<tr>
<td>3</td>
<td>-</td>
<td>20</td>
<td>23.5</td>
</tr>
<tr>
<td>4</td>
<td>-</td>
<td>14</td>
<td>16.5</td>
</tr>
<tr>
<td>5</td>
<td>-</td>
<td>12</td>
<td>14.1</td>
</tr>
<tr>
<td>GPA</td>
<td>2.78</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Coach with most interactiona</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Head coach</td>
<td>-</td>
<td>45</td>
<td>52.9</td>
</tr>
<tr>
<td>Assistant coach</td>
<td>-</td>
<td>39</td>
<td>45.9</td>
</tr>
<tr>
<td>Number of years with coach</td>
<td>2.49</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1</td>
<td>-</td>
<td>11</td>
<td>12.9</td>
</tr>
<tr>
<td>2</td>
<td>-</td>
<td>39</td>
<td>45.9</td>
</tr>
<tr>
<td>3</td>
<td>-</td>
<td>20</td>
<td>23.5</td>
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<tr>
<td>4</td>
<td>-</td>
<td>12</td>
<td>14.1</td>
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<tr>
<td>5</td>
<td>-</td>
<td>3</td>
<td>3.5</td>
</tr>
</tbody>
</table>

(continued)
<table>
<thead>
<tr>
<th>Race/Ethnicity of coach(^a)</th>
<th>M</th>
<th>f</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>White/Caucasian</td>
<td>-</td>
<td>40</td>
<td>47.1</td>
</tr>
<tr>
<td>Black/African American</td>
<td>-</td>
<td>41</td>
<td>48.8</td>
</tr>
<tr>
<td>Latino/Hispanic</td>
<td>-</td>
<td>1</td>
<td>1.2</td>
</tr>
<tr>
<td>Mixed Race or Mixed Identity</td>
<td>-</td>
<td>2</td>
<td>2.4</td>
</tr>
</tbody>
</table>

\(^a\)Responses were missing from these items.

**Preliminary Analysis**

Preliminary analyses to screen the data were performed using the SPSS-22 Explore function. The data met all multivariate assumptions. Results showed that there were no significant outliers, and residual errors were approximately normal and did not show multicollinearity.

**Primary Study Variables**

Prior to conducting inferential statistics, descriptive statistics for the primary variables of the study were also obtained. The statistics of the following variables are presented in Table 2: quality of the coach–athlete relationship (as measured by the CART-Q), self-regulation (as measured by the SSRQ), academic self-efficacy (as measured by the Academic Self-Efficacy Subscale), and proactive and reactive aggression (as measured by the RPQ). These measures are briefly summarized below.

Participants’ perceptions of the coach–athlete relationship were measured by the CART-Q (Jowett, 2005; Jowett & Ntoumanis, 2004). The overall means of each subscale were calculated. High scores for the closeness subscale indicated feeling emotionally closer to coach. High scores on the commitment subscale indicated a stronger intent to maintain a relationship with their coach. High scores on the complementarity subscale indicated a higher level of
cooperative interactions. Lastly, high scores for the total scale (quality of coach–athlete relationship) indicated a positive relationship with their coach.

Participants’ self-regulation was measured by the SSRQ (Carey et al., 2004). Higher scores indicated a stronger ability to control thoughts, emotions, and behaviors in the service of a goal. Participants’ academic self-efficacy was measured by the Academic Self-Efficacy Subscale (Zajacova, et al., 2005). Higher scores indicated a higher level of academic self-efficacy.

Participants’ proactive and reactive aggression was measured by The Reactive-Proactive Aggression Questionnaire (RPQ; Raine et al., 2006). Higher scores for the total scale indicated a higher level of aggression. Higher scores on the Proactive Aggression subscale indicated a more frequent use of aggression to obtain a goal without any previous provocation. Higher scores on the Reactive Aggression subscale indicated a more frequent use of aggression as a reaction against a real or perceived provocation.

Table 2
Descriptive Statistics for Primary Variables

<table>
<thead>
<tr>
<th></th>
<th>( M )</th>
<th>( SD )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Closeness</td>
<td>24.49</td>
<td>3.11</td>
</tr>
<tr>
<td>Complementarity</td>
<td>24.39</td>
<td>2.99</td>
</tr>
<tr>
<td>Commitment</td>
<td>17.02</td>
<td>2.81</td>
</tr>
<tr>
<td>Reactive aggression</td>
<td>17.55</td>
<td>3.79</td>
</tr>
<tr>
<td>Proactive aggression</td>
<td>12.75</td>
<td>2.69</td>
</tr>
<tr>
<td>Academic self-efficacy</td>
<td>205.32</td>
<td>27.99</td>
</tr>
<tr>
<td>Self-Regulation</td>
<td>128.82</td>
<td>15.27</td>
</tr>
</tbody>
</table>
Hypothesis Testing

Hypothesis 1

The first hypothesis predicted that athletes who reported a positive quality relationship with their coach would report a higher capacity for self-regulation outside of sport than would athletes who reported a low quality of C–A relationships.

Hypothesis 1a

It was predicted that athletes who reported a higher level of closeness with their coach would report a higher capacity of self-regulation outside of sport than would athletes who reported a low level of closeness.

Hypothesis 1b

It was predicted that athletes who reported a higher level of complementarity with their coach would report a higher capacity of self-regulation outside of sport than would athletes who reported a low level of complementarity.

Hypothesis 1c

It was predicted that athletes who reported a higher level of commitment with their coach would report a higher capacity of self-regulation outside of sport than would athletes who reported a low level of commitment.

A multiple regression was run to predict the level of self-regulation from the athlete’s reported level of commitment, closeness, and complementarity with their coach. Table 3 shows that the independent variables significantly predict the dependent variable, $F(3,81) = 7.578, p < .001$. The sample multiple correlation coefficient was .47. The $R^2$ indicated that approximately
22% of the variance of the self-regulation index in the sample can be accounted for by the linear combination of the quality of relationship measures.

Table 3 shows the unstandardized coefficients, which indicate how much the dependent variable varies with an independent variable when all other independent variables are held constant. Only the level of complementarity with coach was significant ($p < .001$). These analyses suggest that the strongest predictor is the level of complementarity with coach.

Table 3

Summary of Multiple Regression Analysis for Level of Self-Regulation

<table>
<thead>
<tr>
<th>Predicting variables</th>
<th>$B$</th>
<th>$SE$</th>
<th>$\beta$</th>
<th>$t$</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall model</td>
<td>73.568</td>
<td>12.978</td>
<td>- .129</td>
<td>5.669</td>
<td>.000*</td>
</tr>
<tr>
<td>Closeness</td>
<td>-.634</td>
<td>.915</td>
<td>.503</td>
<td>- .693</td>
<td>.490</td>
</tr>
<tr>
<td>Complementarity</td>
<td>2.561</td>
<td>.753</td>
<td>.503</td>
<td>3.403</td>
<td>.001*</td>
</tr>
<tr>
<td>Commitment</td>
<td>.489</td>
<td>.868</td>
<td>.090</td>
<td>.563</td>
<td>.575</td>
</tr>
</tbody>
</table>

Note. $R^2 = .219$. *$p < .001$

Hypothesis 2

This hypothesis predicted that athletes who reported a positive quality relationship with their coach would report a high level of academic self-efficacy when compared to athletes with low-quality relationships.

Hypothesis 2a

It was predicted that athletes who reported a higher level of closeness with their coach would report a high level of academic self-efficacy than would athletes who reported a low level of closeness.
Hypothesis 2b

It was predicted that athletes who reported a higher level of complementarity with their coach would report a high level of academic self-efficacy than would athletes who reported a low level of complementarity.

Hypothesis 2c

It was predicted that athletes who reported a higher level of commitment with their coach would report a high level of academic self-efficacy than would athletes who reported a low level of commitment.

A multiple regression was run to predict the level of academic self-efficacy from the athlete’s reported level of commitment, closeness, and complementarity with their coach. Table 4 shows that the independent variables statistically significantly predict the dependent variable, $F(3,81) = 11.776, p < .001$. The sample multiple correlation coefficient was .55. The $R^2$ indicated that approximately 30% of the variance of the academic self-efficacy index in the sample can be accounted for by the linear combination of the quality of relationship measures. Only the level of complementarity with coach was significant ($p < .001$). Similar to the finding for Hypothesis 1, the level of complementarity is the strongest predictor of this model (See Table 4).
Table 4

Summary of Multiple Regression Analysis for Level of Academic Self-Efficacy

<table>
<thead>
<tr>
<th>Predicting variables</th>
<th>$B$</th>
<th>$SE, B$</th>
<th>$\beta$</th>
<th>$t$</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall model</td>
<td>88.171</td>
<td>22.433</td>
<td>3.930</td>
<td>.000*</td>
<td></td>
</tr>
<tr>
<td>Closeness</td>
<td>-1.695</td>
<td>1.582</td>
<td>-.189</td>
<td>-1.072</td>
<td>.287</td>
</tr>
<tr>
<td>Complementarity</td>
<td>5.580</td>
<td>1.301</td>
<td>.598</td>
<td>4.289</td>
<td>.000*</td>
</tr>
<tr>
<td>Commitment</td>
<td>1.327</td>
<td>1.500</td>
<td>.134</td>
<td>.885</td>
<td>.3.79</td>
</tr>
</tbody>
</table>

*Notes. $R^2 = .304$. *$p < .001$*

Hypothesis 3

This hypothesis predicted that athletes who reported a positive quality relationship with their coach would report a lower level of proactive aggression outside of sport than would athletes who reported a low quality of C–A relationships.

Hypothesis 3a

It was predicted that athletes who reported a higher level of closeness with their coach would report a lower level of proactive aggression outside of sport than would athletes who reported a low level of closeness.

Hypothesis 3b

It was predicted that athletes who reported a higher level of complementarity with their coach would report a lower level of proactive aggression outside of sport than would athletes who reported a low level of complementarity.
**Hypothesis 3c**

It was predicted that athletes who reported a higher level of commitment to their coach would report a lower level of proactive aggression outside of sport than would athletes who reported a lower level of commitment.

A multiple regression was run to predict the level of proactive aggression from the athletes’ reported level of commitment, closeness, and complementarity with their coach. Table 5 shows that the set of independent variables significantly predicted the dependent variable, $F(3,81) = 4.103, p < .05$. The sample multiple correlation coefficient was .36. The $R^2$ indicated that approximately 13% of the variance of the proactive aggression index in the sample can be accounted for by the linear combination of the quality of relationship measures. However, unlike the findings in the previous two hypotheses, no variable was individually significant.

**Table 5**

*Summary of Multiple Regression Analysis for Level of Proactive Aggression*

<table>
<thead>
<tr>
<th>Predicting variables</th>
<th>B</th>
<th>SE B</th>
<th>β</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall model</td>
<td>.009*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Closeness</td>
<td>.013</td>
<td>.170</td>
<td>.015</td>
<td>.074</td>
<td>.941</td>
</tr>
<tr>
<td>Complementarity</td>
<td>-.221</td>
<td>.140</td>
<td>-.247</td>
<td>-1.584</td>
<td>.117</td>
</tr>
<tr>
<td>Commitment</td>
<td>-.161</td>
<td>.161</td>
<td>-.168</td>
<td>-.996</td>
<td>.322</td>
</tr>
</tbody>
</table>

*Notes. R^2 = .132. *p < .05*

**Hypothesis 4**

This hypothesis predicted that athletes who reported a positive quality relationship with their coach would report a lower level of reactive aggression outside of sport than would athletes who reported a low quality of C–A relationships.
Hypothesis 4a

It was predicted that athletes who reported a higher level of closeness with their coach would report a lower level of reactive aggression outside of sport than would athletes who reported a low level of closeness.

Hypothesis 4b

It was predicted that athletes who reported a higher level of complementarity with their coach would report a lower level of reactive aggression outside of sport than would athletes who reported a low level of complementarity.

Hypothesis 4c

It was predicted that athletes who reported a higher level of commitment with coach would report a lower level of reactive aggression outside of sport than would athletes who reported a low level of commitment.

A multiple regression was run to predict the level of reactive aggression from the athlete’s reported level of commitment, closeness, and complementarity with their coach. Table 6 shows that the independent variables statistically significantly predict the dependent variable, \( F(3,81) = 6.962, p < .001 \). The sample multiple correlations coefficient was .45. The \( R^2 \) indicated that approximately 21% of the variance of the reactive aggression index in the sample can be accounted for by the linear combination of the quality of relationship measures. Out of the three variables, the level of complementarity was the only one that was significant (\( p < .05 \)), again showing that the level of complementarity with coach is the strongest predictor of the model.
Table 6

Summary of Multiple Regression Analysis for Level of Reactive Aggression

<table>
<thead>
<tr>
<th>Predicting variables</th>
<th>$B$</th>
<th>$SE\ B$</th>
<th>$\beta$</th>
<th>$t$</th>
<th>$p$</th>
</tr>
</thead>
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<tr>
<td>Overall model</td>
<td></td>
<td></td>
<td></td>
<td>.000**</td>
<td></td>
</tr>
<tr>
<td>Closeness</td>
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<td>-.017</td>
<td>-.093</td>
<td>.926</td>
</tr>
<tr>
<td>Complementarity</td>
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<td>.189</td>
<td>-.446</td>
<td>-.2.996</td>
<td>.004*</td>
</tr>
<tr>
<td>Commitment</td>
<td>.015</td>
<td>.218</td>
<td>.011</td>
<td>.068</td>
<td>.946</td>
</tr>
</tbody>
</table>

Notes. $R^2 = .132$. *$p < .05$. **$p < .01$.

Summary

The results of the statistical analyses provided partial support for the hypotheses of the study. First, it was hypothesized that athletes who report a positive quality relationship with their coach would report a higher capacity for self-regulation outside of sport than will athletes who report a low-quality C–A relationship. The results of the multiple regression analysis indicated that the quality of the relationship (closeness, complementarity, and commitment) significantly predicted a high level of self-regulation, although the level of complementarity with the coach was the only significant predicting variable. This analysis revealed that student–athletes have a stronger ability to control thoughts and emotions when they are committed to the relationship and—most importantly—when they feel that the relationship reflects cooperation. The level of closeness was a weaker factor in predicting self-regulation.

Secondly, it was hypothesized that athletes who report a positive quality relationship with their coach would report a high level of academic self-efficacy when compared to athletes with low-quality relationships. Consistent with the previous findings, the results indicated that the quality of the relationship significantly predicted a high level of academic self-efficacy, with the level of complementarity being the strongest predicting variable. The analysis revealed that student–athletes were more confident in completing academic tasks when they are committed to
the C–A relationship and when they feel that their skills/abilities complements the coach’s style of teaching. Again, the level of closeness was a weaker factor in predicting the independent variable.

The third hypothesis predicted that athletes who report a positive quality relationship with their coach will report a lower level of proactive regression outside of sport than will athletes who report a low quality of C–A relationships. Although none of the independent variables were significant, the overall model was significant. This suggests that when athletes have a positive quality relationship with their coach they will show less proactive aggressive behaviors, and poor quality relationships will result in an increase in using aggression to obtain a goal without being provoked.

Lastly, the fourth hypothesis stated that athletes who report a positive quality relationship with their coach would report a lower level of reactive aggression outside of sport than will athletes who report a low quality of C-A relationships. The analysis revealed that the levels of closeness, complementarity, and commitment significantly predict the level of reactive aggression. The results showed that a poorer relationship with coach was associated with an increase in reactive aggression. Findings from this hypothesis concluded that the stronger the C–A relationship is—primarily the complementarity interaction—the less likely athletes would express aggression as a reaction against a real or perceived provocation.
CHAPTER V
DISCUSSION

The present study examined the quality of the coach–athlete relationship and its association to the student–athlete’s capacity for self-regulation outside of sport, academic self-efficacy, and aggression. This study focused on African American male college athletes who self-identified as having lived in a high-crime environment. In examining these factors, the intent of the study was to gather evidence to bring awareness to an attachment relationship outside of the family of origin and to provide a more in-depth understanding of the value of the relationship between coach and athlete. This chapter will examine and interpret the findings of the present study, discuss the limitations of the study, provide clinical implications, and present direction for future research.

Interpretation of Findings

The first question investigated by this study asked if the athlete’s capacity for self-regulation outside of sport would be associated with the quality of relationship with his coach. Previous research suggested that individuals who come from disadvantaged communities are at an increased risk for delinquent behavior, disruptive behavior, inattention, and impulsivity (Hardaway et al., 2014). However, when these same individuals are provided with a positive, caring role model, it can reduce their risk of substance abuse, violence, and other perilous behaviors (Cavell et al., 2009). Given these findings, it was hypothesized that athletes who reported a positive relationship with their coach (i.e., a higher level of closeness, complementarity, and commitment) would report a higher capacity for self-regulation outside of sport than would athletes who reported a low quality of C–A relationships.
The results of a multiple regression analysis indicated that a higher level of closeness, complementarity, and commitment significantly predicted a higher capacity for self-regulation. These results suggest that when student–athletes feel close to their coaches, committed, and that the C–A relationship reflects cooperation, they have a stronger ability to control thoughts and emotions. Specifically, the level of complementarity with the coach was the strongest predictor of self-regulation. Jowett and Cockerill (2003) stated that because cooperation is a principal complementary property in the athlete–coach relationship, complementarity reflects the type of interaction that the coach and athlete perceive as cooperative. The authors added that when athletes feel that their coaches provide them with competencies they do not possess—but are needed to improve performance—is an essential factor in predicting a positive relationship (Jowett & Cockerill, 2003). These findings along with the present study show that when athletes feel that they can learn from the coach, while still contributing to the relationship, then they become confident student–athletes. Not only does it enable athletes to channel their efforts towards accomplishing sport-related goals, but results from this study show that complementary roles improve the athlete’s ability to self-regulate outside of sport.

The second question investigated by this study asked if the athlete’s level of academic self-efficacy would be associated with the quality of relationship with his coach. Although exposure to community violence has been shown to be associated with negative outcomes in academic performance (Bowen & Bowen, 1999; Hardaway et al., 2014), this study proposed that the presence of a role model would lessen that chance. Therefore, the second hypothesis predicted that athletes who reported a positive quality relationship with their coaches would report a higher level of academic self-efficacy when compared to athletes with low-quality C–A relationships. The results of a multiple regression analysis found that when athletes reported a
positive relationship with their coaches they also reported a higher level of academic self-efficacy. These results are consistent with those from the former research question in that the level of complementarity was the strongest predictor.

The third research question for this study asked if the level of proactive aggression outside of sport would be associated with the quality of relationship with their coach. Given Bandura’s (1973, 1986) social–cognitive learning theory, which suggests that behavior is learned from the environment through observation, it was assumed that participants from this study would be at a higher risk to display proactive aggression learned from their exposure to violent environments. However, the presence of a positive adult figure who models a positive emotional response to stress, anger, or frustration may decrease the likelihood of an athlete to express proactive aggression contrary to what is observed in their environment. Therefore, the fourth hypothesis predicted that athletes who reported a positive quality relationship with their coaches would report a lower level of proactive aggression outside of sport than would athletes who reported a lower quality of C–A relationships. The results of a multiple regression analysis showed that the overall quality of relationship significantly predicted the level of proactive aggression, although no individual component of the relationship (closeness, commitment, or complementarity) accounted for significant variance on its own.

The final research question asked if the level of reactive aggression outside of sport would be associated with the quality of relationship with their coach. A multiple regression analysis confirmed the fourth hypothesis, which predicted that athletes who reported a positive quality relationship with their coach would report a lower level of reactive aggression outside of sport than would athletes who reported a low quality of C–A relationships. These findings are
similar to the first two research questions; the level of complementarity was the strongest predictor.

Results from all research questions suggest that when athletes report a positive quality relationship with their coaches, it increases their chances to be more academically confident, show and feel in control over emotions and behavior, and display less aggression. Although the level of closeness was not a significant factor in predicting outcome variables, it is possible that the results were impacted by demographics. For example, the length of relationship with coach could have affected the athlete’s perception of liking or trusting the coach and ultimately impacting the relationship. Overall, the findings suggest that the coach has an important role in the athlete’s life and can impact it positively. Most importantly, the findings show that this relationship may be especially important for athletes who come from high-crime communities, because they are at a greater risk for negative outcomes in adulthood.

**Limitations**

There are several limitations to the present study. First, the participants in this study were all collegiate level male basketball players. Therefore, results of this study may not be generalized to athletes (including female) in other sports or athletes who play at a different competitive level (e.g., professional, high school). The second limitation is the possibility of a self-selection bias. The participants of this study all chose to participate due to meeting the primary descriptive, a male college basketball player. Additionally, this same group may have a different level of motivation, self-confidence, sport performance, or academic performance level than those who chose to not participate.

Third, although all participants self-identified as having lived in a high-crime community, their level of exposure is unknown. This presents an issue because there is no known time frame
of exposure (i.e., current, past, short or extended period) or how athletes conceptualized community violence. In addition, a high-crime community may be different from the perspective of one athlete as compared to another. Fourth, there was no assessment of current or prior factors that allowed the athlete to develop a strong relationship with coach (e.g., past positive relationships, self-concept, shorter time spent in high-crime community, or relationships with teammates). Fifth, given that athletes spend most of their time with their coaches—not limited to practice or the competition environment—there was no assessment that measured the coach’s personal qualities (outside of sport) that allowed the athlete to develop either a positive or negative relationship. Finally, due to the high demands of being a student–athlete it was difficult getting athletes to participate. Even though the number of participants exceeded the minimum required by the power analysis, this raises an issue of looking at alternative ways to recruit athletes; asking other student–athletes to forward an email was not as advantageous as soliciting athletes directly.

**Clinical Implications**

There are several clinical implications derived from the results of this study. The findings suggest that the coach–athlete relationship is another relationship outside of the family-of-origin that can contribute to the athlete’s development. Even more so, when athletes are away at college the coach is often the closest (in proximity) adult figure. When this is the case, and particularly if the relationship is strong, it is likely that the athlete will confide in the coach when there is an issue or even to share positive news. The coach has an influential role in the athlete’s life. College athletes spend at least 40 hours a week practicing (Jacobs, 2015), and most of that time is spent with and facilitated by the coach. The coach is the authority figure, and the way the coach disciplines, comforts, or responds to successes can influence the athlete’s physical,
cognitive, emotional, and social development. The findings from this study suggest that when athletes have a good relationship with their coach they may also transfer their positive relationship and attain success outside of sport. This is especially important for athletes who are from high-crime communities. Studies show that exposure to violence, via direct victimization or witnessing, is significantly associated with higher levels of aggression (Bailey & Coore-Desai, 2012), elevated levels of PTSD (Fitzpatrick & Boldizar, 1993), hopelessness (Bolland et al., 2005), substance abuse (Kilpatrick et al., 2000), and poor academic performance (Milam et al., 2010). The findings of the present study suggest that a strong C–A relationship may help prevent these negative outcomes.

Additionally, the findings from this study provide a more in-depth understanding of the coach and athlete relationship. This study suggests that the impact of the coach–athlete relationship is not limited to the sporting environment and that a good relationship may lead to positive outcomes for the athlete. By contrast, a bad C–A relationship can be detrimental for the athlete. Jowett and Cockerill (2003) found that the C–A relationship can be a source of stress and distraction for the athlete. A study by Gould, Guinan, Greenleaf, Medbery, and Peterson (1999) revealed that athletes’ preparation leading up to the 1996 Olympic Games in Atlanta was affected by issues such as lack of trust, support, communication, and respect among coaches and athletes who operated at the highest level of sport. However, the difference in the outcome of the present study may be due to the perceived level of complementarity. When the relationship reflects cooperation, it is possible that it reduces stress, distraction, and athletes feel respected and appreciated—by the coach—and that their contributions are valued. Furthermore, Jowett and Cockerill (2003) and Ryan (1996) agree that coaches who aim to provide their athletes with the support they deserve should not only concentrate on developing the athlete as a performer, but
The results of the present study support the previous statement, in that the C–A relationship does not only make the athlete a better performer, but an overall better person (i.e., increased self-regulation and academic self-efficacy and decreased proactive and reactive aggression). Therefore, it will be beneficial for coaches who work with this specific group to consider the world outside of the arena and what being a student–athlete means. This is particularly important given the fact that most college athletes do not become professional players.

Finally, the findings from this study promote the field of psychology by identifying another important variable that can help reduce negative outcomes for young Black men: the coach–athlete relationship. Only 5.5% of Black males age 18 and older are college students (Feirman, 2014), 26% of them ages 16 to 64 live below poverty level (Deshay, n.d.), and Black men make up 37.8% of the prison population (Williams, 2016). The results from this study show that the coach–athlete relationship is another protective factor that can help reduce aggressive behavior (that can lead to criminal activity), improve self-regulation (low self-regulation can lead to dysregulated emotions), and improve academic self-efficacy (can lead to academic achievement and employment). The results from this study extend the field of psychology by offering another consideration when treating student–athletes. The relationship between the athlete and coach is another important dynamic in the athlete’s life that can have a positive or negative impact on the athlete’s development, as found in this study and previous studies.

**Recommendations for Future Research**

The goal of the current study was to gain an understanding of the C–A relationship and its possible impact on the athlete outside of sport. While this study gives insight into this unique relationship, numerous areas of inquiry remain. First, as indicated in the limitations, this study
did not assess for level of community violence exposure. While detailed questions regarding traumatic events may not have been appropriate for the present study because of human subjects concerns with online research, it is recommended that future research include this information and analyze the impact of the different levels of exposure. Future research may also benefit from doing a comparative analysis on different performance levels. Developmentally, athletes in this study may have been more equipped to manage emotions and display confidence in academics than those who are younger (e.g., middle school) or play at a lower competitive level (e.g., intramural sports). Also, as noted in the limitations, the present study did not address the athlete’s relationship with his teammates and how these relationships affect the C–A relationship. Athlete leaders have been shown to influence team cohesion, athlete satisfaction, and team confidence (Fransen et al., 2012; Price & Weiss, 2011, 2013; Vincer & Loughead, 2010). Moreover, both coaches and players confirm the essential role the leader has (Fransen, Vanbeselaere, De Cuyper, Vande Broek, & Boen, 2014). Given the importance of the leader’s role, it is recommended that future research assess the quality of relationship with teammates (specifically individuals with leadership roles) and its mediating effects on the C–A relationship.

Given that the current study only included male athletes and coaches, future research may benefit from investigating female athletes. Female athletes from high-crime communities are at the same risk for negative outcomes; however, the impact of the quality of relationship with their coach may differ due to having male and female coaches. It is possible that the dyads may yield different results due to gender. Females tend to be an understudied topic due to delinquency rates for males being higher, which significantly influenced the research on males (Taylor, Nanney, Welch, & Wamser-Nanney, 2016). However, given the findings from this study, and other studies (Gardner, Roth, & Brooks-Gunn, 2009; Rhea & Lantz, 2004; Taylor, Shoemaker,
Welch, & Endlsey, 2010), it is expected that females, too, will have an increased chance for positive outcomes. Additionally, the findings of this study cannot ascertain whether athletes’ perceptions about the quality of relationship with their coaches cause these individuals to display less aggression and increase academic self-efficacy and self-regulation. The models tested represent a set of predictive but not necessary causal relationships. Longitudinal research designs can explain patterns relative to academic self-efficacy, self-regulation, and proactive and reactive aggression.

There is a significant amount of literature that supports the role of the family as mitigatory for various negative outcomes for individuals exposed to community violence (Howard, Budge, & McKay, 2010; Kliewer et al. 2004; Lesham, Haj-Yahia, & Guterman, 2016; Lynch, 2003). However, there is also literature suggesting that caring adults outside of the individual’s life play a significant role in providing developmental assets and assisting in promoting adolescent well-being (Scales et al., 2005). Mentors and teachers have been a major focus for these individuals, but the current study, along with others (Richardson, 2012), show that coaches, too, have a strong influence. Richardson found that in poor communities, coaches can diminish youths’ wariness of adults and provide consistent quality adult supervision and stability in the lives of young Black men. For many Black men who grow up in high-crime communities their fathers are not present. Considering these probabilities, future research may benefit from investigating the impact of African American coaches. Richardson suggests that coaches, “specifically adult black [sic] males, are vital forms of social capital in poor communities where conventional community adult male role models are often absent” (p. 189). To some degree, (especially in these circumstances) the coach may be that father figure,
providing the youth with information, assistance, exposure to adult worlds, support, and encouragement (Jarret, Sullivan, & Watkins, 2005).
References


Appendix A

Solicitation Email

Dear Division-I Student Athlete Advisory Committee (SAAC),

Hello, my name is Keoshia Worthy and I am a doctoral student in the Counseling Psychology Ph.D. program in the Department of Professional Psychology and Family Therapy, in the Seton Hall University College of Education and Human services. I am currently collecting data for my dissertation. My research examines the impact the coach-athlete relationship can have on the athlete’s functioning outside of sport. **As part of this research, I am seeking collegiate level African American male basketball players who have been on the team for at least one year.** Can you forward to all male basketball players on your member list?

For participants who are interested in taking the survey a description of the research along with the link is provided below.

**Purpose and duration of Research**
This project aims to gain a better understanding of the coach-athlete relationship among African American male college basketball players.

This survey should take about 20 to 25 minutes to complete.

**Instruments:**
Participants are asked to complete six instruments during this survey. (1) Demographic Questionnaire, (2) The Coach-Athlete Relationship Questionnaire, (3) Academic Self-Efficacy Subscale, (4) The Reactive-Proactive Aggression Questionnaire, (5) Short Self-Regulation Questionnaire.

**Procedures and Voluntary Participation:**
Participants must be at least 18 years old, are currently a college level African American male basketball player, have been with their current team for at least one year, and are willing to participate in this study. **Players at any level or status** redshirt players and non-scholarship players are eligible to participate. Participants may withdraw from the study at any time without consequence.

**Anonymity Preservation and Confidentiality Maintenance:**
Anonymity will be maintained throughout all aspects of the study. Any publication of the data from this study will in no way identify participants and results will be reported in combined form only. All materials will be collected in the strictest confidence. Completed responses to questionnaires will be kept in a secure location and will be accessible only to myself and my academic advisor, Dr. Pamela Foley. The data will be stored electronically on a USB memory key and kept in a locked, secure physical setting.
**Anticipated Risks and Discomfort:**

There are no significant risks or discomforts likely to be associated with this study. However, participants who do experience significant distress are urged to discontinue the study, close their browsers, and seek support. Participants may choose to speak to a trusted friend, to use the American Psychological Association’s psychologist locator to request a referral to a psychologist in their area through the following website: http://locator.apa.org/ or contact the 24-Hour Distress Line at (780) 482-4357. Participants may also contact the counseling center at their own universities. In addition, because there are risks associated with any internet activity, it is recommended that participants exercise caution when using the internet to protect their privacy.

**Benefits to Research:**

Participation provides useful information in further understanding of the coach and athlete relationship among African American males.

**Alternative Procedures:**

This study does not involve any clinical treatment; therefore, there are no relevant alternative procedures.

**Contact Information:**

If participants have questions regarding the research process or would like to have a copy of the results, they may contact Keoshia Worthy and/or Dr. Pamela Foley, Faculty Advisor at 973-275-2743. If participants have questions regarding their rights as research participants, the Director of Seton Hall University Institutional Review Board (IRB), Dr. Mary Ruzicka, may be reached at 973-313-6314.

Keoshia Worthy, M.S., Principal Researcher  
Keoshia.worthy@student.shu.edu  
404-823-3342

Thank you for your consideration.

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**Your consent to participate in this study is indicated by clicking on the link and participating in the survey. The survey can be completed on all electronic devices (e.g., phone, computer, tablet).**

[https://shucehs.co1.qualtrics.com/SE/?SID=SV_8GIW5bydHW0pHa5](https://shucehs.co1.qualtrics.com/SE/?SID=SV_8GIW5bydHW0pHa5)

Your completing the survey will serve as your consent to participate in the study. **The survey will be open between October 1, 2016 and January 1, 2017.** If you choose to participate, please visit the website between those dates.
Appendix B

Inclusion Criteria

Please take your time and answer each question truthfully. Your responses will be kept strictly confidential. Thank you very much.

1. Are you 18 years old or older?
   ___ Yes
   ___ No

2. Do you identify as a College level African American male basketball player?
   ___ Yes
   ___ No

3. Have you been on your current team for at least one year?
   ___ Yes
   ___ No

4. Have you ever experienced or witnessed violence (e.g., muggings, shootings) in your home neighborhood?
   ___ Yes
   ___ No
Appendix C
Demographic Questionnaire

Demographic Information: Some of the following questions may seem quite personal. However, this information will help the researcher to understand the other information that you and other participants provide. All data will be analyzed based on the group overall, and it will not be linked to any individual participant.

1. Age____

2. Academic year
   ___Freshman
   ___Sophomore
   ___Junior
   ___Senior
   ___Graduate Student

3. Number of years on team
   ___1 year
   ___2 years
   ___3 years
   ___4 years
   ___5 years

4. Scholarship status
   ___Non-Scholarship
   ___Partial-Scholarship
   ___Full Scholarship

5. Professional Aspirations
   ___Professional Athlete
   ___Other (please specify)

6. Cumulative Grade Point Average at end of the most recent semester ____

7. With which coach do you have the most interaction?
   ___Head Coach
   ___Assistant Coach

For the remaining questions please answer them based on the coach you identified in question 7.

8. Gender of Coach
   ___Male
   ___Female
9. With which Race/Ethnicity do you think your coach most strongly identifies?
   __White/Caucasian
   __Black/African American
   __Latino/Hispanic
   __Asian/Pacific Islander
   __Mixed Race or Mixed Ethnicity
   __Other (please specify)

10. Number of years with coach
    __1 year
    __2 years
    __3 years
    __4 years
    __5 years
Appendix D

The Reactive-Proactive Aggressive Questionnaire
(Raine et al., 2006)

Instructions: There are times when most of us feel angry, or have done things we should not have done. Rate each of the items below by putting a selecting either 0 (never), 1 (sometimes), or 2 (often). Do not spend a lot of time thinking about the items—just give your first response. Make sure you answer all the items (see below).

How often have you...

<table>
<thead>
<tr>
<th>Item</th>
<th>0 (never)</th>
<th>1 (sometimes)</th>
<th>2 (often)</th>
</tr>
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<tbody>
<tr>
<td>1. Yelled at others when they have annoyed you</td>
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<tr>
<td>2. Had fights with others to show who was on top</td>
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<tr>
<td>3. Reacted angrily when provoked by others</td>
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<tr>
<td>4. Taken things from other students</td>
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<tr>
<td>5. Gotten angry when frustrated</td>
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<td>6. Vandalized something for fun</td>
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<tr>
<td>7. Had temper tantrums</td>
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<td>8. Damaged things because you felt mad</td>
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<tr>
<td>9. Had a gang fight to be cool</td>
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<tr>
<td>10. Hurt others to win a game</td>
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<tr>
<td>11. Become angry or mad when you don’t get your way</td>
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<tr>
<td>12. Used physical force to get others to do what you want</td>
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<tr>
<td>13. Gotten angry or mad when you lost a game</td>
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<tr>
<td>14. Gotten angry when others threatened you</td>
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</table>
15. Used force to obtain money or things from others

16. Felt better after hitting or yelling at someone

17. Threatened or bullied someone

18. Made obscene phone calls for fun

19. Hit others to defend yourself

20. Gotten others to gang up on someone else

21. Carried a weapon to use in a fight

22. Gotten angry or mad or hit others when teased

23. Yelled at others so they would do things for you
Appendix E

Coach–Athlete Relationship Questionnaire (CART-Q)  
(Jowett & Ntourmanis, 2004)

This questionnaire aims to measure the quality and content of the coach–athlete relationship. Please read carefully the statements below and circle the answer that indicates whether you agree or disagree. There are no right or wrong answers. Please respond to the statement as honest as possible and relevant to how you personally feel with the coach you have the most interaction with.

<table>
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<tr>
<th></th>
<th>Strongly Disagree</th>
<th>Moderately</th>
<th>Strongly</th>
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<tbody>
<tr>
<td><strong>1.</strong> I am close to (not distant from) my coach</td>
<td>1</td>
<td>2</td>
<td>3</td>
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<tr>
<td><strong>2.</strong> I am committed to my coach</td>
<td>1</td>
<td>2</td>
<td>3</td>
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<tr>
<td><strong>3.</strong> I like my coach</td>
<td>1</td>
<td>2</td>
<td>3</td>
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<tr>
<td><strong>4.</strong> When I am coached by my coach, I am at ease</td>
<td>1</td>
<td>2</td>
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<td><strong>5.</strong> I trust my coach</td>
<td>1</td>
<td>2</td>
<td>3</td>
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<td><strong>6.</strong> I think that my sport career is promising with my coach</td>
<td>1</td>
<td>2</td>
<td>3</td>
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<tr>
<td><strong>7.</strong> When I am coached by my coach, I am responsive to his/her efforts</td>
<td>1</td>
<td>2</td>
<td>3</td>
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<tr>
<td><strong>8.</strong> I respect my coach</td>
<td>1</td>
<td>2</td>
<td>3</td>
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<tr>
<td><strong>9.</strong> I appreciate my coach’s sacrifices in order to improve performance</td>
<td>1</td>
<td>2</td>
<td>3</td>
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<td><strong>10.</strong> When I am coached by my coach, I am ready to do my best</td>
<td>1</td>
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<td><strong>11.</strong> When I am coached by my coach, I adopt a friendly stance</td>
<td>1</td>
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Appendix F

Academic Self-Efficacy Subscale (ASES)
(Zajacova, Lynch, & Espenshade, 2005)

<p>| Please answer how confident you are that you can successfully complete these tasks | Not at all confident | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | Extremely confident |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. Studying | | | | | | | | | | | |
| 2. Asking questions in class | | | | | | | | | | | |
| 3. Keeping up with the required readings | | | | | | | | | | | |
| 4. Understanding my professors | | | | | | | | | | | |
| 5. Writing term papers | | | | | | | | | | | |
| 6. My parent’s expectations of my grades | | | | | | | | | | | |
| 7. Making friends at school | | | | | | | | | | | |
| 8. Doing well on exams | | | | | | | | | | | |
| 9. Getting papers done on time | | | | | | | | | | | |
| 10. Having more tests in the same week | | | | | | | | | | | |
| 11. Taking good class notes | | | | | | | | | | | |
| 12. Managing both school and work | | | | | | | | | | | |
| 13. Preparing for exams | | | | | | | | | | | |
| 14. Managing time efficiently | | | | | | | | | | | |
| 15. Getting along with family members | | | | | | | | | | | |
| 16. Improving my reading &amp; writing skills | | | | | | | | | | | |
| 17. Researching term papers | | | | | | | | | | | |</p>
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<td>18. Getting the grades I want</td>
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<td>19. Having enough money</td>
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<td>20. Talking to my professors</td>
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<td>21. Getting help and information at school</td>
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<td>22. Doing well in my toughest class</td>
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<td>23. Talking to college staff</td>
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<td>24. Finding time to study</td>
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<td>25. Understanding my textbooks</td>
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</tr>
<tr>
<td>26. Participating in class discussions</td>
<td></td>
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<tr>
<td>27. Understanding college regulations</td>
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</tbody>
</table>
Appendix G

Short Self-Regulation Questionnaire (SSRQ)
(Carey, Neal, & Collins, 2004)

**SSRQ**

Please respond to the following questions by circling the response that best describes how you are. If you **STRONGLY DISAGREE** with the statement, circle 1. If you **DISAGREE**, circle 2. If you are **UNCERTAIN** or **UNSURE**, circle 3. If you **AGREE**, circle 4. If you **STRONGLY AGREE**, circle 5. There are no right or wrong answers. Work quickly and don’t think too long about your answers.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Uncertain or Unsure</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I usually keep track of my progress toward my goals.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>2. I have trouble making up my mind about things.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>3. I get easily distracted from my plans.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>4. I don’t notice the effects of my actions until it’s too late.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>5. I am able to accomplish goals I set for myself.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>6. I put off making decisions.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>7. It’s hard for me to notice when I’ve “had enough” (alcohol, food, sweets).</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
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<tr>
<td>8.</td>
<td>If I wanted to change, I am confident that I could do it.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>9.</td>
<td>When it comes to deciding about a change, I feel overwhelmed by the choices.</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Uncertain or Unsure</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
</table>

| 10. | I have trouble following through with things once I’ve made up my mind to do something. | 1 | 2 | 3 | 4 | 5 |
| 11. | I don’t seem to learn from my mistakes. | 1 | 2 | 3 | 4 | 5 |
| 12. | I can stick to a plan that’s working well. | 1 | 2 | 3 | 4 | 5 |
| 13. | I usually only have to make a mistake one time in order to learn from it. | 1 | 2 | 3 | 4 | 5 |
| 14. | I have personal standards, and try to live up to them. | 1 | 2 | 3 | 4 | 5 |
15. As soon as I see a problem or challenge, I start looking for possible solutions.  

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<thead>
<tr>
<th></th>
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<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
</table>

16. I have a hard time setting goals for myself.  

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<tr>
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<th>4</th>
<th>5</th>
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</table>

17. I have a lot of willpower.  

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<th>3</th>
<th>4</th>
<th>5</th>
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</table>

18. When I’m trying to change something, I pay a lot of attention to how I’m doing.  

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<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
</table>

19. I have trouble making plans to help me reach my goals.  

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<th>1</th>
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<th>3</th>
<th>4</th>
<th>5</th>
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</table>

20. I am able to resist temptation.  

<table>
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<tr>
<th></th>
<th>1</th>
<th>2</th>
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<th>4</th>
<th>5</th>
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</table>

21. I set goals for myself and keep track of my progress.  

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
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</table>

22. Most of the time I don’t pay attention to what I’m doing.  

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
</table>
23. I tend to keep doing the same thing, even when it doesn’t work. 1 2 3 4 5

24. I can usually find several different possibilities when I want to change something. 1 2 3 4 5

25. Once I have a goal, I can usually plan how to reach it. 1 2 3 4 5

26. If I make a resolution to change something, I pay a lot of attention to how I’m doing. 1 2 3 4 5

27. Often I don’t notice what I’m doing until someone calls it to my attention. 1 2 3 4 5

28. I usually think before I act. 1 2 3 4 5

29. I learn from my mistakes. 1 2 3 4 5

30. I know how I want to be. 1 2 3 4 5
31. I give up quickly.  

<p>| | | | | | |</p>
<table>
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</thead>
</table>
Appendix H

Permission to use CART-Q
(Jowett & Ntoumanis, 2004)

Keosha Worthy <kwort126@gmail.com> to S. Jowett 5/6/15

Dr. Jowett,

Hello, my name is Keosha Worthy and I am currently a third year doctoral student Counseling Psychology. I am in the process of writing my dissertation (first 3 chapters) and I am investigating the coach-athlete relationship and its impact on the athlete’s academic self-efficacy, self-regulation (outside of sport), and aggression in sport. I am writing to ask for access and permission to use the CART-Q (11-item), in addition to instructions for scoring. If you can be of any assistance I will greatly appreciate it.

Thank you,

Keosha Worthy, MS
Doctoral Student
Seton Hall University

Sophia Jowett <S.Jowett@lboro.ac.uk> 5/6/15

Dear Keosha,

Thank you for your message. I have attached the CART-Questionnaire for your perusal.
Appendix I

Permission to use RPQ
(Raine et al., 2006)

---

Permission to use RPQ

Dr. Dodge,

Hello, my name is Keoshia Worthy and I would like to request permission to use the RPQ. I am a fourth year doctoral student at Seton Hall University studying Counseling Psychology. I am currently working on my dissertation and I am measuring aggression in African-American male athletes. If you can be of any assistance with this scale I will greatly appreciate it. Thank you for your time.

Best,

Keeshia

---

Kenneth Dodge

to me

Keeshia,

You have my permission to use this instrument.

Sincerely,

Ken Dodge

---

From: Keeshia Worthy [mailto: kw1234@gmail.com]
Appendix J

Permission to use ASES
(Zajacova, Lynch, & Espenshade, 2005)
Appendix K

Permission to use SSRQ
(Brown, Miller, Lawendowski, 1999)

Dr. Carey,

Hello, my name is Keohia Worthy and I am currently a third year doctoral student studying Counseling Psychology. Presently, I am in the process of writing my dissertation and am seeking the S-SRQ. I understand that you assisted in creating the SRQ, but I am looking for the shorter version for my dissertation. I am having trouble finding any contact information for Brown, Miller, and Lawendowski. If you by chance have their contact information and can point me into a better direction for the scale I will greatly appreciate it. Thank you for your time.

Best,

Keohia Worthy, MS
Doctoral Student
Seton Hall University

Keohia Worthy <kwott126@gmail.com> 5/8/15

Dr. Carey,

My apologies, I have been looking at the SRQ all day and confused the creators for that and the SSRQ. If you can be of any assistance of provided me the SSRQ in addition to how it is scored I will greatly appreciate it. Thank you for your time.

Kate Carey <kate_carey@brown.edu> 5/8/15

Here is a copy of the SSRQ and scoring instructions.
—Dr. Carey
Appendix L

Permission to contact Student–Athlete Advisory Committee (SAAC)
NCAA’s Director of Governance, Letter of Intent

Hi Keoshia,

I have forwarded your email to the 32 National SAAC members.

Enjoy your holiday weekend!

Susan

Susan S. Peal
Director of Governance, National Letter of Intent
w: 317-223-6789  e: 317-614-5601  peal@di.gov

Post Office Box 6222, Indianapolis, IN 46206-6222

From: Keoshia Worthy  w/ko@setonhall.edu
Sent: Thursday, May 26, 2016 7:25 PM

Hi Pamela,

I have forwarded your email to the 32 National SAAC members.

Enjoy your holiday weekend!

Keoshia Worthy

Susan

Hi Pamela,

I have forwarded your email to the 32 National SAAC members.

Enjoy your holiday weekend!

Keoshia Worthy
Appendix M

National Board Division-I SAAC representatives

-agreement to assist with study-
Hi Keoshia,

My name is Cody McDavis and I am a member of the Division I Student-Athlete Advisory Committee (SAAC). I saw your email and would like to offer my assistance where possible. I am an African American, Male, Men’s Basketball student-athlete. I am afraid I am not from a high crime community but I am from a relatively under-privileged background. Please let me know what I can do to help.

Respectfully,

Cody McDavis

Cody McDavis
Market Analyst
Keoshia Worthy

Umarah, Thank you so much. I first have to submit my study to my school’s Instiut... 5/27/2016 9:14 AM

Umarah Mughnee <umughneedisaac@gmail.com>

5/27/2016

Keoshia Worthy

NCAA SAAC

Hello,

My name is Umarah Mughnee and I represent the student-athletes of the MEAC and would absolutely love to help assist you with your study. As a conference comprised of predominantly HBCU’s, please let me know what I can do to help.

Talk to you soon,

SAAC 1 of 1
Appendix N

Permission to reprint copyrighted scales

Keoshia,

Yes, you have my permission to reproduce the scale. Congratulations on your dissertation.

Kan

Dr. Jovett,

Hello, my name is Keoshia Worthy and we spoke some time ago regarding me using the CART-Q as a part of my dissertation. I am happy to say that my dissertation is complete and I am now in the process of publishing. I will be including a hard copy of your scale as a part of my dissertation and need your permission to print the RPQ. If you can, please respond to this email with your permission to print the RPQ as a part of my dissertation. Thank you for your time.

Below is a screenshot of a previous message between us.

Best,

Keoshia Worthy
Doctoral Candidate, Counseling Psychology
San Francisco University

Hi Keoshia,

You have my permission to print the CART-Q for the research purpose you explained. Thank you.

With best wishes,

Sophia

Sports Coach UK (Talent Development and Coach-Athlete Relationship in Sports) on YouTube
https://www.youtube.com/watch?v=9VgWt3nW6z&app=desktop
Dear Dr. Zajacova,

Hello, my name is Keoshia Worthy and we spoke some time ago regarding me using the Academic Self-Efficacy Sub-Scale as a part of my dissertation. I am happy to say that my dissertation is complete and I am now in the process of publishing. I will be including a hard copy of your scale as a part of my dissertation and need your permission to print the Academic Self-Efficacy Sub-Scale. If you can, please respond to this email with your permission to print the Academic Self-Efficacy Sub-Scale as a part of my dissertation. Thank you for your time.

Best,

Keoshia Worthy
Doctoral Candidate, Counseling Psychology
Seton Hall University

Anna Zajacova
anna.zajacova@uwo.ca

Dear Dr. Worthy,

Congratulations for successfully defending your dissertation! I am happy to give permission to print the Academic Self-Efficacy Sub-Scale as a part of your dissertation or other publications resulting from your research. Best wishes publishing your results and with all your other career endeavors.

Anna Zajacova, Ph.D.
Associate Professor of Sociology
University of Western Ontario

---

Keoshia Worthy <kwort126@gmail.com>

Hello Dr. Carey,

Hello, my name is Keoshia Worthy and we spoke some time ago regarding me using the SSRQ as a part of my dissertation. I am happy to say that my dissertation is complete and I am now in the process of publishing. I will be including a hard copy of your scale as a part of my dissertation and need your permission to print the SSRQ. If you can, please respond to this email with your permission to print the SSRQ as a part of my dissertation. Thank you for your time.

Best,

Keoshia Worthy
Doctoral Candidate, Counseling Psychology
Seton Hall University

Kate Carey

You have permission to print the SSRQ as long as you cite the original article as the source.